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XXX

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The fibula from Suseni (Photo: B. Rezi)

Back cover:
The brick kiln from Cristești, Mureș County (Photo: C. D. Crișan & D. Cioată)

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THE COȚOFENI SITE FROM ȘINCAI-CETATEA PĂGÂNILOR (MUREȘ COUNTY). THE 1996–1997 CAMPAIGNS*

ÁLDOR CSABA BALÁZS

“1 Decembrie 1918” University, Alba Iulia

Keywords: Eneolithic, Coțofeni Culture, settlements, pottery

The Transylvanian Plateau is the zone with the highest density of Coțofeni communities. In this area is located also the site which makes the subject of this study, *Cetatea Păgânilor* (*Pagan Fortress*) near Șincai, Mureș county (Pl. 1). Already mentioned in the second half of the 19th century by Károly Benkő,¹ Balázs Orbán² and then by Gábor Téglás, the site was investigated first time by Endre Orosz in 1895. He is the first who considers the finds (among witch a cross-shaped copper axe) coming from the Eneolithic.³ J. Könyöki and G. Nagy, I. Marțian, B. Pósta, M. Roska, H. Schroller, I. Nestor, Al. Vulpe, Petre Roman are also referring to the artefacts found at *Cetatea Păgânilor*.⁴

Many artefacts that have appeared on the surface as a result of works carried out here by locals and those collected after several non-systematic, random excavations, by I. Gorjan (the principal of the school from Șincai), gradually formed a school collection.⁵ After some field work and studying the finds from the school's collection, the late Valeriu Lazăr carries out systematic excavations here in 1974–1977⁶ and then in 1996–1997,⁷ to establish the stratigraphy, structure, and cultural content of this important archaeological objective. He wanted to find the limits of the settlement, and to see if this occupied also the secondary hillock, stretched towards SE, to study the stratigraphic traces of the Eneolithic dwellings and to confirm their horizontal expansion. A suspected third terrace of the settlement also had to be confirmed.⁸

Before discussing the last campaigns, we consider it's necessary to clarify a few details about the earlier ones (1974–1977), as we have identified some inconsistencies and deficiencies

* The site was researched by Valeriu Lazăr. The archaeological materials from these campaigns are in the deposit of the Mureș County Museum. We would like to thank to Dr. Sándor Berecki for offering the material for study.

¹ Benkő 1869, 348.

² Orbán 1870, 201.

³ Orosz 1898, 322–330.

⁴ Könyöki–Nagy 1905, 287; Marțian 1920, I. nr. 452; II. nr. 215; Pósta 1903, 11; Roska 1929, 271; Schroller 1933, 74; Nestor 1933, 94, fig. 20; Vulpe 1973, 224, 227; Roman 1976, 85.

⁵ Lazăr 1977, 21.

⁶ Lazăr 1977; 1978; 1995.

⁷ The 1989 campaign mentioned by V. Lazăr in the Mureș County archaeological repertory is not enumerated in the chronicle from 1996.

⁸ Lazăr 1995, 251–252.

in the published results. In the D section,⁹ extended by two squares to the north (F of 7×7 m and F_1 of 5×5 m), and another two squares to the south (G of 7×7 m and G_1 of 7×5 m),¹⁰ two dwellings were revealed. The traces of the first dwelling (L_1), partially disturbed, were revealed also in the squares F_1 (south-western corner) and G_1 (east side). It was a large, surface house, probably with two rooms, divided by a large, 2.50 m rectangular shaped stone block (a possible threshold?). Unfortunately the F_1 and G_1 squares were not extended to uncover the entire dwelling. We believe that it would have been particularly useful to extend the G_1 square to south-west. Judging by the limits of the adobe outlined in the section D, and square G_1 , a considerable part of the dwelling has remained untapped, and the stone slabs under the 30 cm thick house floor, the 2.5 m long shaped stone threshold, the rich and diverse inventory suggests that this was a particular, large house.

In the south-eastern corner of the G_1 square, the remaining of an inhumation grave (M_1),¹¹ oriented NE–SW, was discovered. But, because V. Lazăr mentioned the tomb as being “disarranged in ancient times”¹² without giving any other details, and since the skeleton lacks anatomical connection, the possibility of a misinterpretation is to be taken into account. Reburial or pre-burial excarnation procedures with subsequent burial of the disjointed skeleton should also be carefully considered. The scattered human bones discovered on the platform of three surface houses and in a pit-house from the settlement are suggestive of such a funeral rite. V. Lazăr believes it might be a magic-religious practice of slashing corpses or anthropophagism.¹³ Up to the present moment we know only from the *Igrița Cave* (Peștera Igrița) certain Coțofeni burials with disjointed skeletons.¹⁴ Unfortunately no anthropological analysis were performed, which could confirm or rule out completely that the disjointed and fragmented condition of the bones discovered in this settlement was caused by mutilation or intentional chopping right after the death or partially maybe even before.

The second surface dwelling (L_2), cut by the D section and marked also by the large quantity of burned adobe, was also completely unveiled. Its northern limit was noticed in section F and its southern limit in section G. The finds from the D section and from the lateral squares, other possible dwellings or houses, made V. Lazăr to open in 1976 two more sections here, at the southernmost extremities of the G and G_1 squares. Noted G_2 and G_3 , the sections were 30×1.5 m NE–SW orientation, and parallel.

In the G_2 section in the yellow clayey layer, which overlaps the marl layer, numerous pits of different sizes and shapes were found, with various archaeological materials. Compared with the other sections, this contained modest traces of culture, except the earlier mentioned pits. In the parallel section, both the yellow sandy layer that overlaps the marl layer, and the silty yellow layer above are rich in archaeological materials. It was necessary to open six more squares here, laterally, and in the extension of the G_3 section to fully unveil the surface dwellings found here. But the exact position of these squares is unclear in the campaign report published by V. Lazăr, while there is a discrepancy in the dimensions of the squares, and the original drawings made by the author.¹⁵ To determine the exact position of these, we have made a reconstruction based on the original sketches from the 1974–1977 campaign (Fig. 1).

⁹ About the section I, opened in the top of the plateau in 1975, we have only stratigraphic data, V. Lazăr gives no information about the findings.

¹⁰ Lazăr 1977, 25.

¹¹ The later mention of this grave (Lazăr 1995, 252), as being discovered in section D, is obviously an error.

¹² Lazăr 1977, 47.

¹³ Lazăr 1982, 37.

¹⁴ Emődi 1984, 406–407.

¹⁵ Lazăr 1977, 22, pl. I; VII.

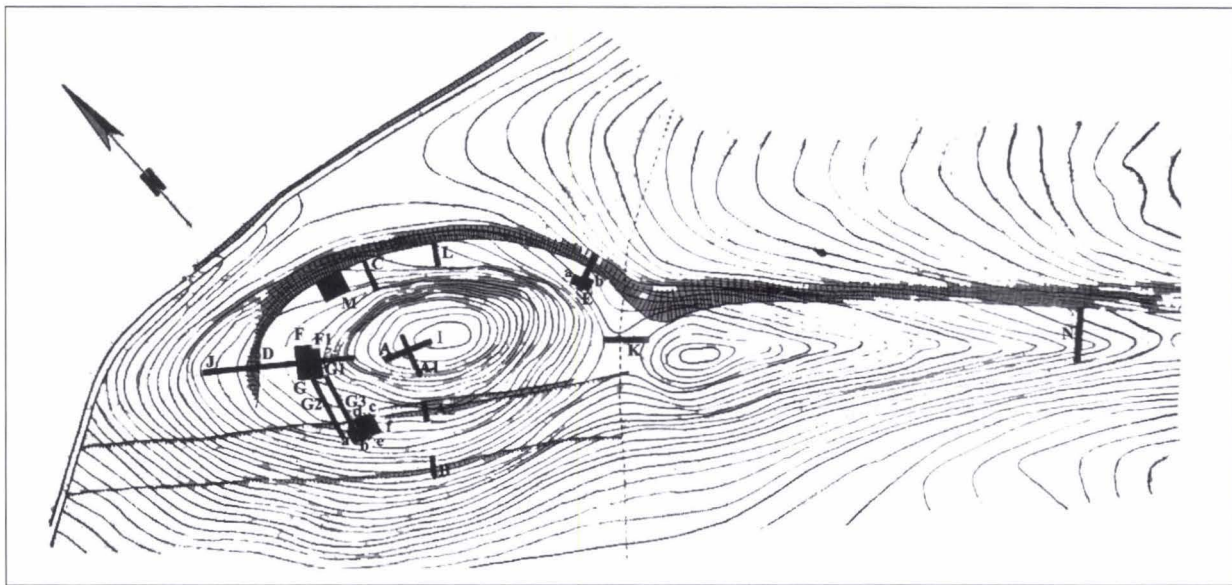


Fig. 1. The plan of the 1974–1977 and 1996–1997 campaigns (after V. Lazăr).

Thus, in the southern extremity and western side of the section G_3 , a square “a” was opened, measuring 7.50×5 m. This was later extended to the north-east, to fully uncover a pit (Gr. 20).¹⁶ To east from square “a”, the 2×6 m square “b” was opened,¹⁷ to uncover the L_8 dwelling. This square had to be extended later, by square “e”, measuring 6×3 m, to find the limits of the dwelling. It was also necessary to open two more squares, “c” and “d”, of 5×2 m and 6.80×2 m, to north from squares “b” and “c”, perpendicular on the east wall of the G_3 section. The purpose of these was to completely uncover the L_9 dwelling.

Adjacent to the “c”, “d” and “e” squares, in the campaign from the next year they have opened the square “f”, to investigate the L_{10} dwelling, partially uncovered in the east corner of square “d”. The real dimensions of this square are different from the data published by V. Lazăr, who mentions this as measuring 12×1.50 m,¹⁸ enlarged to 3.50 m from m 3.50. In fact this square is 12×1.80 m enlarged to 3.80 m (according to the original drawings), and crosses the south-east extremity of square “d” (Fig. 2). Here a new surface

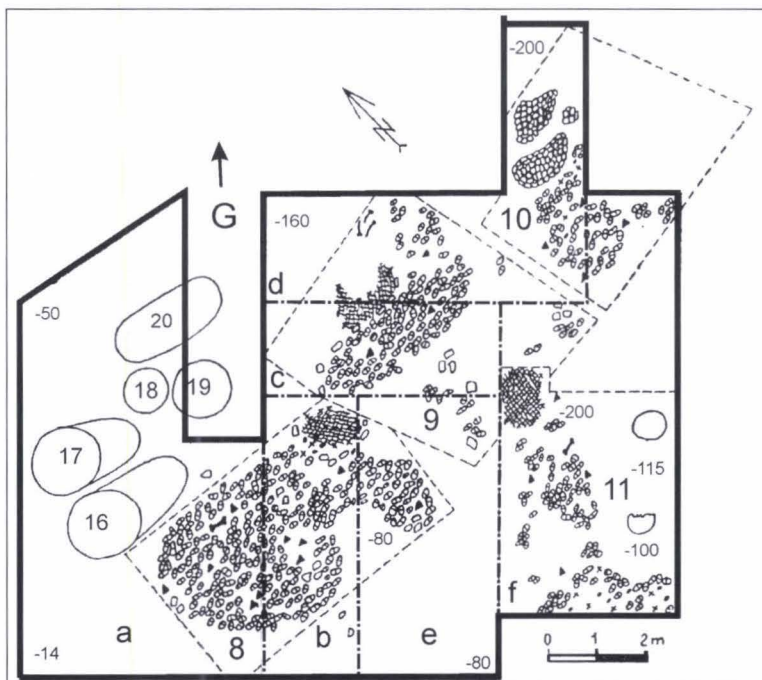


Fig. 2. The surfaces a–e, f with the dwellings 8–11 and the pits 16–20 (after V. Lazăr).

¹⁶ The size of this grid is incorrectly published as being 5×4.50 m. In the original plans, hand-drawn (probably) by V. Lazăr, the grid is mentioned as measuring 7.50×5 m. These are the correct dimensions, which match the plates published by V. Lazăr in 1977.

¹⁷ Published by V. Lazăr as measuring 6×2.50 m, which based on his drawings, is incorrect.

¹⁸ Lazăr 1977, 22.

dwelling (L_{10}) was partially revealed, with burned adobe floor, smoothed with a thick clay layer. It could have been fully unveiled by enlarging the square “f”, or opening new squares.

As we have very few information about the 1996–1997 campaigns, only a short report on the website of the Institute for Cultural Memory (CIMEC), and a few words about the artefacts,¹⁹ we’ve considered important to publish these campaigns, and the findings. The 10×10 m section opened in 1996 on the lower terrace of the settlement, to north, was noted M (Fig. 1). It was parallel to the C section opened in 1974, and it was gridded from 2 to 2 m, from north to south (grids 1 to 5) and east to west (grids A to E). Geologically, the structure of this section is identical with the one from the section C: at the surface (top soil) we have the vegetation layer (0–0.30 m), which overlaps in sequence, a yellow silty layer (from 0.30 to 1.00 m) and a yellow sandy layer (1.00 to 1.60 m) below which is marl.

Archaeological deposits are in the yellow silty layer, but they were also noticed in the yellow sandy layer. They belong to the Coțofeni culture (Copper Age, Eneolithic), and the Schneckenberg culture (Early Bronze Age). On the entire surface of section, below the top soil, there were unearthed pottery fragments, which judging by their profile belonged to cups, pots, amphorae, tempered with sand and gravel, decorated with patterns in relief (“lentil grains”, short horizontal belts on the rim), but also in other techniques (incision, successive pricks or “Furchenstich” and impressions).

In the grids A2–B2–4 and C4 at 0.70 m a surface dwelling was found with hearth and a pit. The rectangular-shape dwelling was built on a burned compact adobe (floor), with a thickness ranging between 9 and 12 cm. It was built on a wooden structure and wattle plastered with adobe. A small adobe fragment with incised ornaments (Pl. 7/8), found in the remaining of the dwelling, suggests that its walls were ornamented. Judging from the coal, ash, and collapsed walls, the dwelling probably burned down.

The 80 cm diameter hearth was found at 0.55 m, in the south-western corner of the dwelling, and the pit to south (C4), at 0.80 m. The hearth had straight walls, coated with a smoothed layer of yellow clay, deepening in the yellow sandy layer to 1.40 m. The pit was grasped at 0.80 m, and had a rich inventory, what we could reconstruct from a few hand-written notes which accompanied the findings. In the filling of this pit bone remains, potshards, two large restorable vessels (Pl. 3), a stone axe fragment (Pl. 7/6), and a fragment of a grinder (Pl. 7/5) was found.

On the platform of the dwelling there were potshards, few flint and stone tools (blades, chisel fragments, grinder fragments), and bone tools (awls). Another two pits were found in the E2 and E5 grids. Near the dwelling, in grid D5 an inhumation grave was found in an oval pit (1.80×1.20 m). Disturbed already in ancient times, the grave was of a child buried in contracted position. Near the grave, in the pit there were slabs of stone (sandstone) and grey, restorable vessels, decorated with ornaments in relief (conical knobs, round buttons, indented, oblique or vertical applied jagged belts), impressions.²⁰ The burial had a rich inventory, with several restorable vessels, from the Schneckenberg culture.²¹ Considering also the several potshards from the same culture, found in the cultural layer, in all levels, we can suspect here a later Schneckenberg settlement. As the shards were found mixed with Coțofeni materials in all layers,

¹⁹ In the Chronicle of Archaeological Research in Romania, 2000, the campaign is dated as taking place in 1996. According to some original hand-written notes accompanying the findings from the archaeological excavations, stored at the Mureș County Museum, the research of the area took place in 1997, too.

²⁰ CIMEC (<http://www.cimec.ro/scripts/arh/cronica/detaliu.asp?k=436>).

²¹ We wish to thank dr. Berecki Sándor from the Mureș County Museum for this information. The artefacts found in the Schneckenberg burial will be the subject of another article.

and without having any clear stratigraphic data,²² we have to take into consideration also the possibility of the layers being disturbed in the past.

The archaeological material mostly consists of fragmentary pottery, out of which we have analyzed the well-defined forms, and the fragments with characteristic decorations (about 20% of the total number of potshards). Regarding the composition of the paste and surface treatment, they can be classified in coarse ware (common use vessels, the highest number of potshards belongs to this category), and fine pottery (just a few fragments).

The coarse ware (Pl. 4/1, 3; 6/13; 9/7–9; etc.) represents the most common type. Their surface is poor or medium smoothed, made of a coarse, porous, unevenly burned paste, tempered with gravel, chaff, crushed shard, chopped straw, mica and rarely crushed shells. Their colour is sometimes uneven, resulting from the poor quality burning. Most of them are red (brick coloured), brick-greyish, and a few black, black-greyish, grey, or brown. The fine quality ceramics are rare (Fig. 3), only a few shards found, all dark-coloured (Pl. 6/4–6). Only two large vessels could be restored: one amphora,²³ Vb-Roman,²⁴ Vb-Ciugudean (Pl. 3/1), Ic-Lazăr type, with analogies from Boarta,²⁵ Șeușa–Gorgan,²⁶ Peștera Moanei;²⁷ and one large vessel for supplies, of XIII-Roman type²⁸ (Pl. 3/2), both found in the pit near the dwelling. This amphora type is characteristic for the third phase of evolution of the Coțofeni culture.²⁹ There is also one restorable vessel, a jar (Pl. 4/4), XIIb-Roman, Iib-Ciugudean type, with analogies from Bratei–Nisipărie.³⁰ The potshards belong to amphorae (Pl. 5/1–2), storage vessels (Pl. 5/4), pots (Pl. 4/1–3; 5/3, 6/8, 11–12), shallow bowls (6/9; 9/4, 8, 12), deep bowls (Pl. 7/12; 8/2; 9/10, 13), jugs (Pl. 9/1, 3) and cups (Pl. 6/1, 4–6; 8/6, 10). We have a VIIC-Roman, VIIC-Ciugudean or VB-Méder type cup fragment (Pl. 6/4), with analogies from Ogra,³¹ Deva³² or Turia–Cimitirul romano-catolic.³³ This form appears in the second period of evolution of the culture. The Ia4-Roman, Ia2-Ciugudean type bowl (Pl. 8/2) has good analogies from Sebeș–Râpa Roșie.³⁴ The decorated, B1-Roman, wide flat handle (Pl. 6/10) found on the platform of the dwelling belongs to a large pot or storage vessel, with a close analogy from Basarabi.³⁵ For the amphorae fragments we have analogies from Unirea–Dealul Cărnăii.³⁶

The most common decoration type is made by incision. There are “deepened triangles” (Pl. 4/3; 5/4; 6/1, 9; 8/3, 12), incised bands (Pl. 3/1; 6/10; 8/1; 9/2), incised “fish skeleton” motives (9/3), incised “trestle” motives. The Af-Roman type motive of “deepened triangles” in Central Transylvania is specific to all three periods of the culture, with analogies from Bocșa Montană–Colțan,³⁷ Gornea

²² We have no diary for the 1996–1997 campaigns, no plans, the only information we could work with, come from the few notes of the findings stored in the Mureș County Museum.

²³ Two amphorae of this type were found at Șincai also in the 1974–1977 campaigns.

²⁴ Roman 1976, 21, pl. 23/3; 85/2.

²⁵ Roman 1976, pl. 85/2.

²⁶ Ciută–Gligor 2004, pl. 31.

²⁷ Ghemiș–Sava 2006, pl. V/2.

²⁸ Roman 1976, 23, pl. 31/1.

²⁹ Ciugudean 2000, pl. 146.

³⁰ Roman 1976, pl. 55/4.

³¹ Berecki 2006, pl. 2/2.

³² Roman 1976, pl. 26/8; 46/9.

³³ Méder 2004, 38, pl. I/10–11; 2/5–6.

³⁴ Roman 1976, pl. 12/16.

³⁵ Roman 1976, pl. 49/2.

³⁶ Ciugudean 2000, pl. 53/1–2.

³⁷ Ciugudean 2000, pl. 100/4–5.

and Herculane–*Peștera hoților*.³⁸ The “trestle” motive, according to P. Roman, is characteristic for the third phase,³⁹ but was noticed also in phase I at Cefa.⁴⁰ The “fish-skeleton” motive, for which we have analogies from Sibiu,⁴¹ Basarabi, Bistreț, Cluj-Napoca, Livezile,⁴² is considered by P. Roman as specific for the two last phases, but at Micești, Vinerea and Uioara de Jos they were noticed in the first phase as well. The “deepened triangle” motives are common in all the phases of the culture.

The impressions are also commonly used, we have hatched bands (Pl. 3/2; 8/2, 5), impressions with successive stitches, “Furchenstich” (Pl. 6/4, 5; 8/6; 8/10). The impressions organised in lines (Pl. 8/2), La-Roman type ornament, in Transylvania was dated in all three periods of the culture, with analogies from Bernadea,⁴³ Cașolt–*Poiana în Pisc*,⁴⁴ Petrești,⁴⁵ Bratei–*Nisipărie*, Lelicieni–*Locul oprit*.

There were just a few shards with relief decoration (Pl. 7/16, 19; 8/7, 9), and the roughening of the surface with barbotine was noticed on a few vessel fragments. No incrustation decoration could be observed. The majority of them are brick-coloured (Fig. 3), with secondary burning noticed only in the case of about 2% of the fragments. The only recipients which had a direct contact with the fire in the moment of their usage, come from the platform of the surface dwelling (8 pot fragments). The others show the traces of the secondary burning from the period when the potshard had been broken, or are the result of a deficient burning.⁴⁶ 41% of the pottery is moderately smoothed, 37% well-, and 15% superficially-smoothed. Only 6% of the pottery was polished (Fig. 4). The burning is almost exclusively oxidizing. Regarding the temper, a variety of combinations were observed, the materials used was sand, gravel, crushed shards, crushed shells, chaff, and in two cases crushed limestone (Fig. 5).

Other clay objects were also found, four spindle whorls (Pl. 7/1–4), scattered in the layers from 0.30 to 1.60 m. These are found often in Coțofeni settlements: Vinerea–*În deal*,⁴⁷ Sebeș–*Râpa Roșie*,⁴⁸ Reghin,⁴⁹ and a high number were found at Șincai also in the previous campaigns,⁵⁰ which with the loom-weights, show intense textile production. Considering the typology of the forms and ornaments on the pottery found in the site, we consider that the presented material belongs to the second and third phase of the Coțofeni culture, in line with the previous findings from the site. We don't have enough information, and the findings are too fragmentary to be able to make a more exact chronological framing of the surface dwelling uncovered in this campaign.

The five campaigns have uncovered 80 m² of the first terrace, and 460 m² of the second terrace. This represents only 6.40% and 5.19% of the entire surface of the two terraces. Therefore, we have now a good image about the importance of the site, the culture of the settlement from

³⁸ Roman 1976, pl. 62/11; 65/10.

³⁹ Roman 1976, 26, fig. 2.

⁴⁰ Crișan 1988, 339–351.

⁴¹ Luca–Boroffka 1995, pl. 78/4.

⁴² Roman 1976, pl. 41/1–16.

⁴³ Ciugudean 2000, pl. 41.

⁴⁴ Paul 1960, 114, fig. 7/1–6; Roman 1976, 157, 57/8–10.

⁴⁵ Roman 1976, 153–156, pl. 53–56.

⁴⁶ Lazăr 1978, 36.

⁴⁷ Popa 1998, pl. XXII/3.

⁴⁸ Roman 1976, pl. 52/34.

⁴⁹ Moldovan 2006, pl. II/3.

⁵⁰ Lazăr 1978, pl. XVIII.

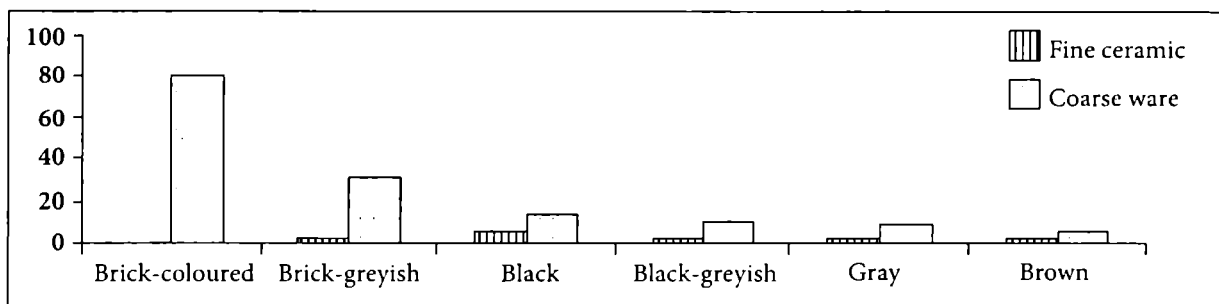


Fig. 3. Ceramic colour based on ceramic categories.

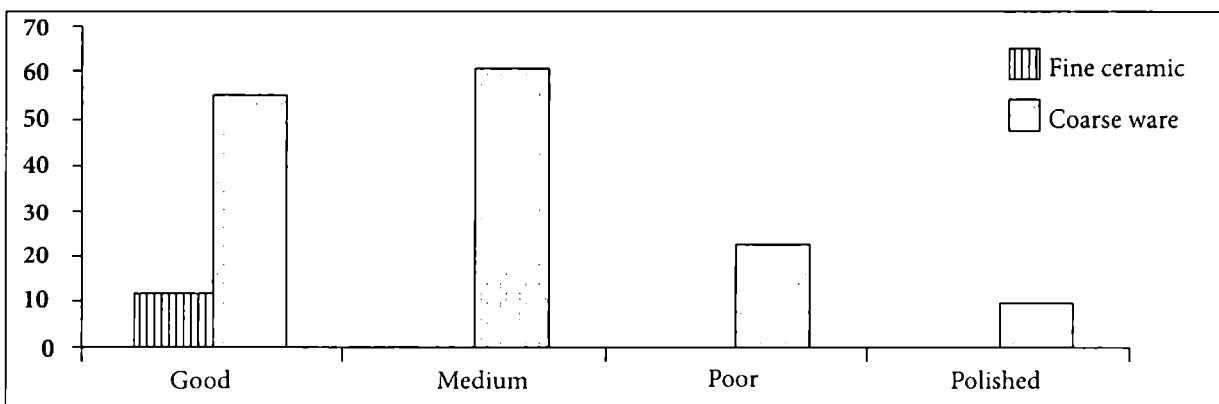


Fig. 4. Surface treatment based on ceramic categories.

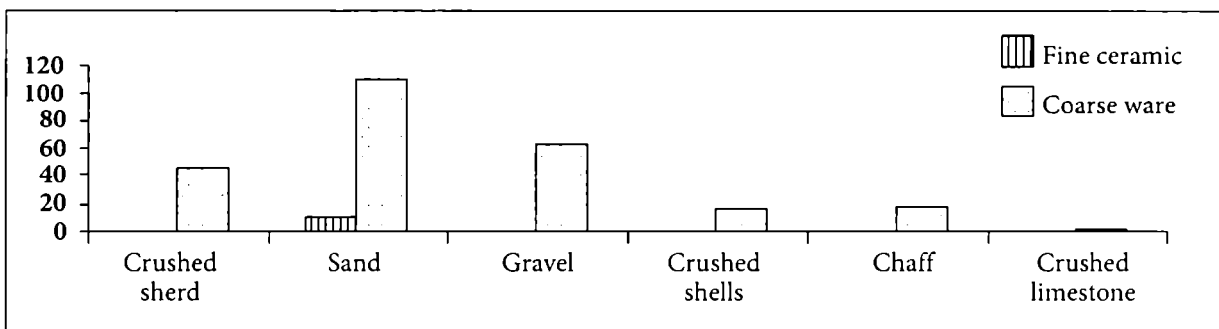


Fig. 5. Temper distribution based on ceramic categories.

the *Cetatea Păgânilor*, its dating, we can estimate its expansion and limits, we have information about its structural characteristics, the position of the dwellings in the investigated surfaces, but could not gather sufficient data for a reconstruction. The research is fragmentary, incomplete at certain points, and does not seek to fully reveal the surface complexes (some complexes are only partially grasped). The collected material is also insufficient for us to be able to draw some conclusions about the micro- and macro-regional interdependence. To study this aspect we would need much more archaeological materials, in which to identify external elements.

The excavations revealed 12 surface dwellings, 4 pit-houses, a stove, several hearths, several waste or storage pits, and one grave.⁵¹ They have also confirmed the number of the terraces, their structure, and proved that both were inhabited, with higher density on the north-west, and west

⁵¹ Considering only the findings belonging to the Coțofeni culture, though the dating of the grave is equivocal.

side of the lower terrace. Here, in certain points two levels of habitat were observed. The surface dwellings and the pit-houses had their walls on the limits of the terraces.

The richness and diversity of the findings, makes this site one of the most important and representative Coțofeni settlements. It was possible to establish a typology for the ceramic vessels based on their forms, and a table of analysis for the main ornament types used. For the five pieces of metal found in the site a metallographic analysis was carried out, which showed that they were locally made, from native copper.⁵² The inventory of the findings showed that the members of the Coțofeni community from Șincai–Cetatea Păgânilor practiced a mixed economy, as farmers, animal breeders, craftsmen and hunters. The thickness of the Coțofeni layer proves that this was a long-lasting settlement.

We believe that the site still has significant potential, and new research based on modern methods could provide valuable data which may clarify some still unclear issues regarding the Coțofeni culture. The aerial topography research conducted in 2009–2010 by the Mureș County Museum with the Archaeological Institute of Eötvös Lóránd University (ELTE, Budapest, Hungary) has identified several potential external objectives: tumuli graves located at E–SE from the Fortress (Pl. 2). It seems that these were observed also by V. Lazăr, as there are several photos made in the 1974–1977 campaigns (unpublished), on which the shape of these tumuli can be noticed. Since then, these were much flattened by the three decades of farm work. The investigation of these tumuli could provide very important information regarding the funerary rite and ritual of the Coțofeni culture, about which we know so little at this moment, as we have over 1500 sites with findings, but only 14 burial sites which can be definitely attributed to this culture.

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⁵² Lazăr 1978, 56, note 6.

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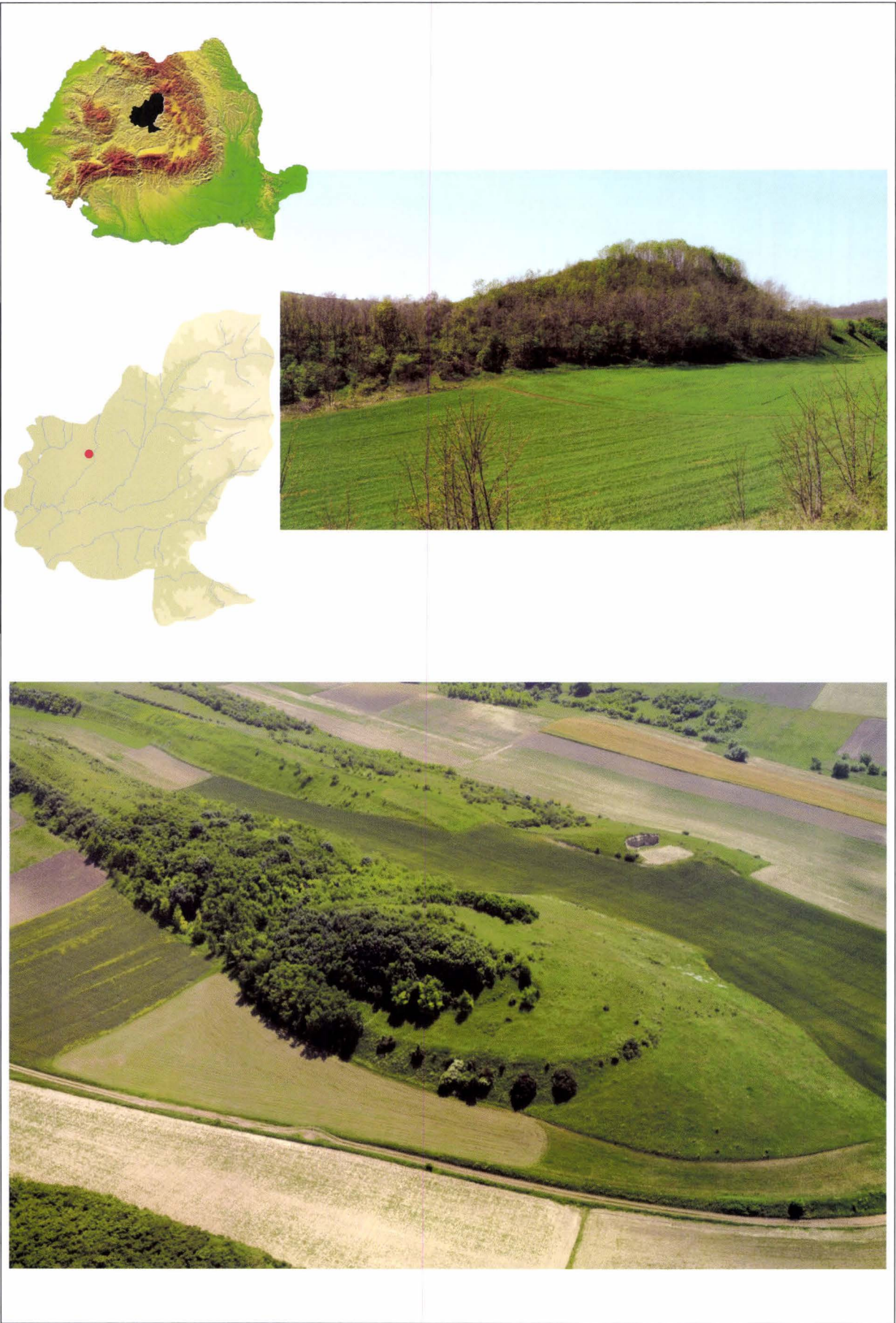


Plate 1. Șincai–Cetatea Păgânilor

(Photo: Zoltán Czajlik © Hungarian Scientific Research Fund IN 77325).
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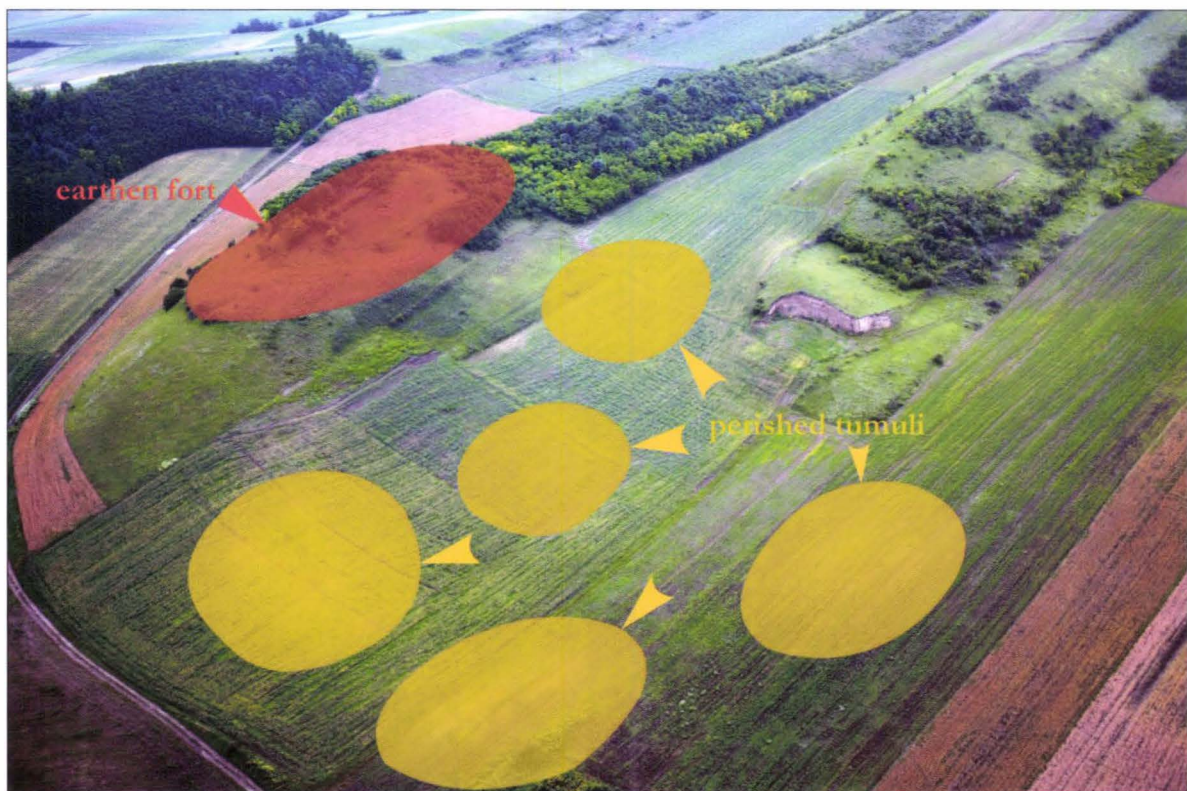


Plate 2. Potential external objectives
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Pl. 3. Șincai–Cetatea Păgânilor. 1. Amphora; 2. Large vessel.
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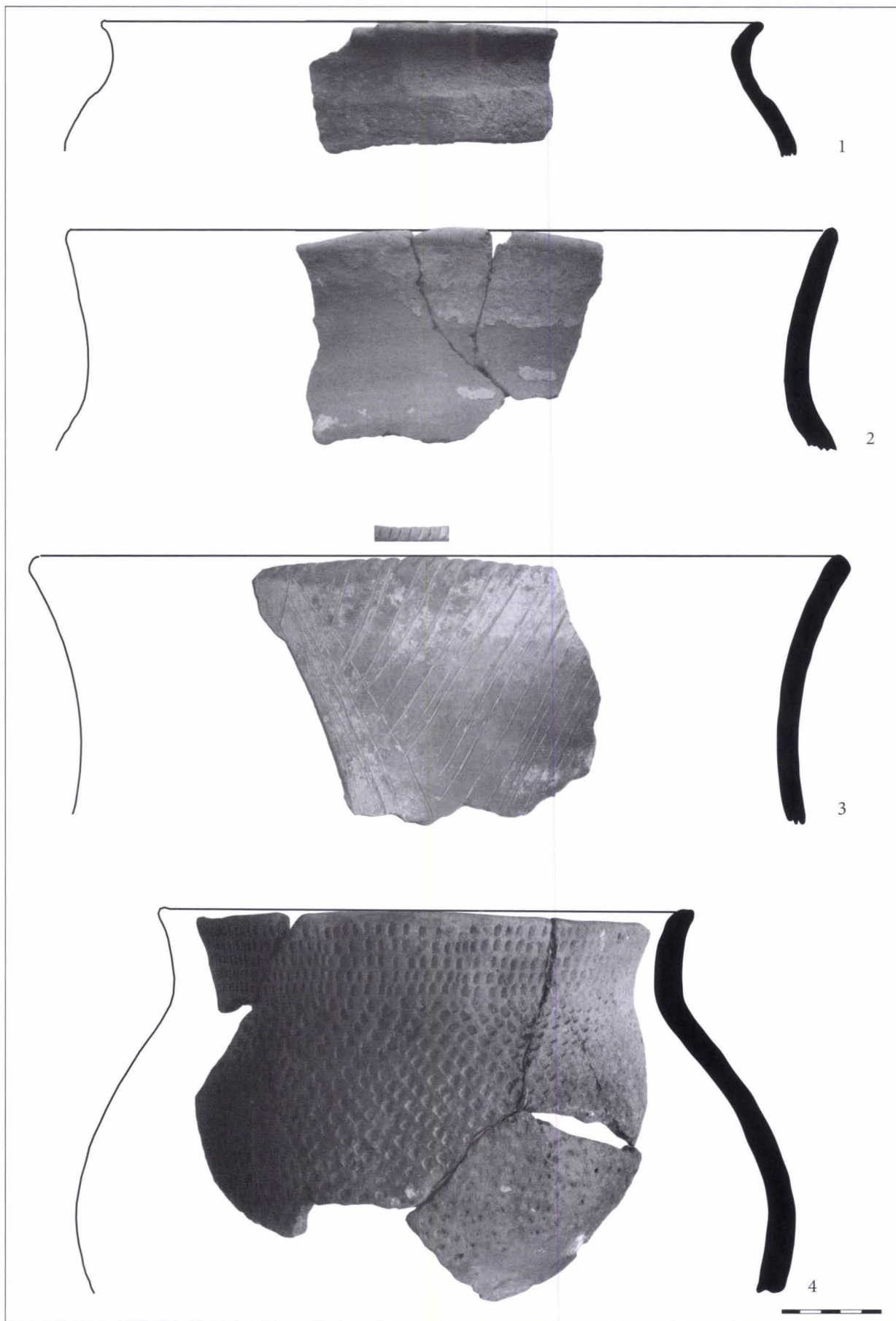
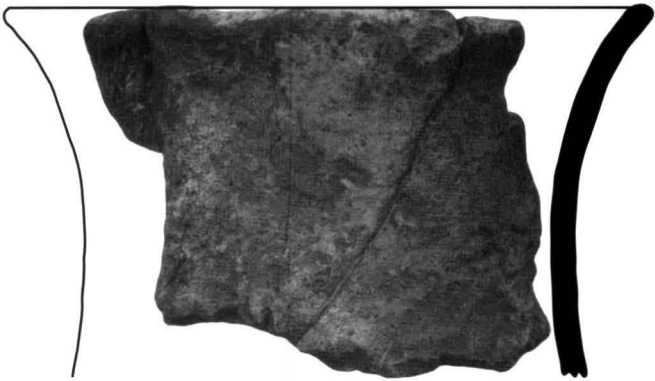
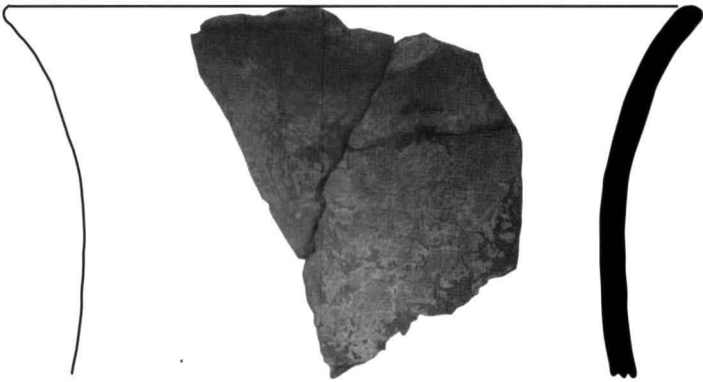


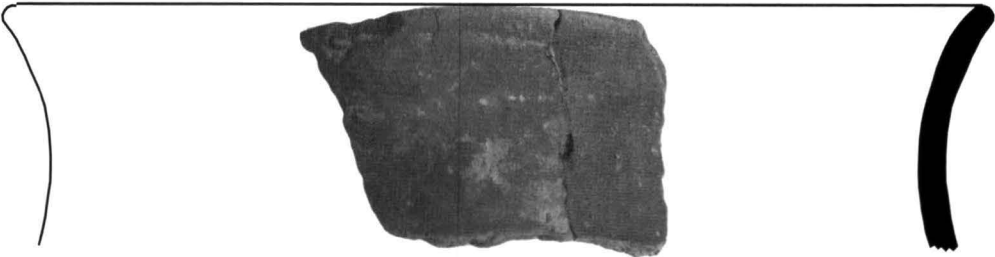
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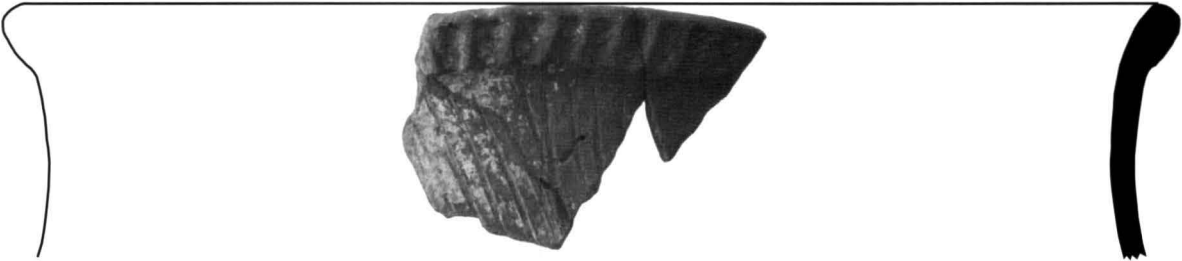
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Plate 5. Șincai–Cetatea Păgânilor. Pottery.
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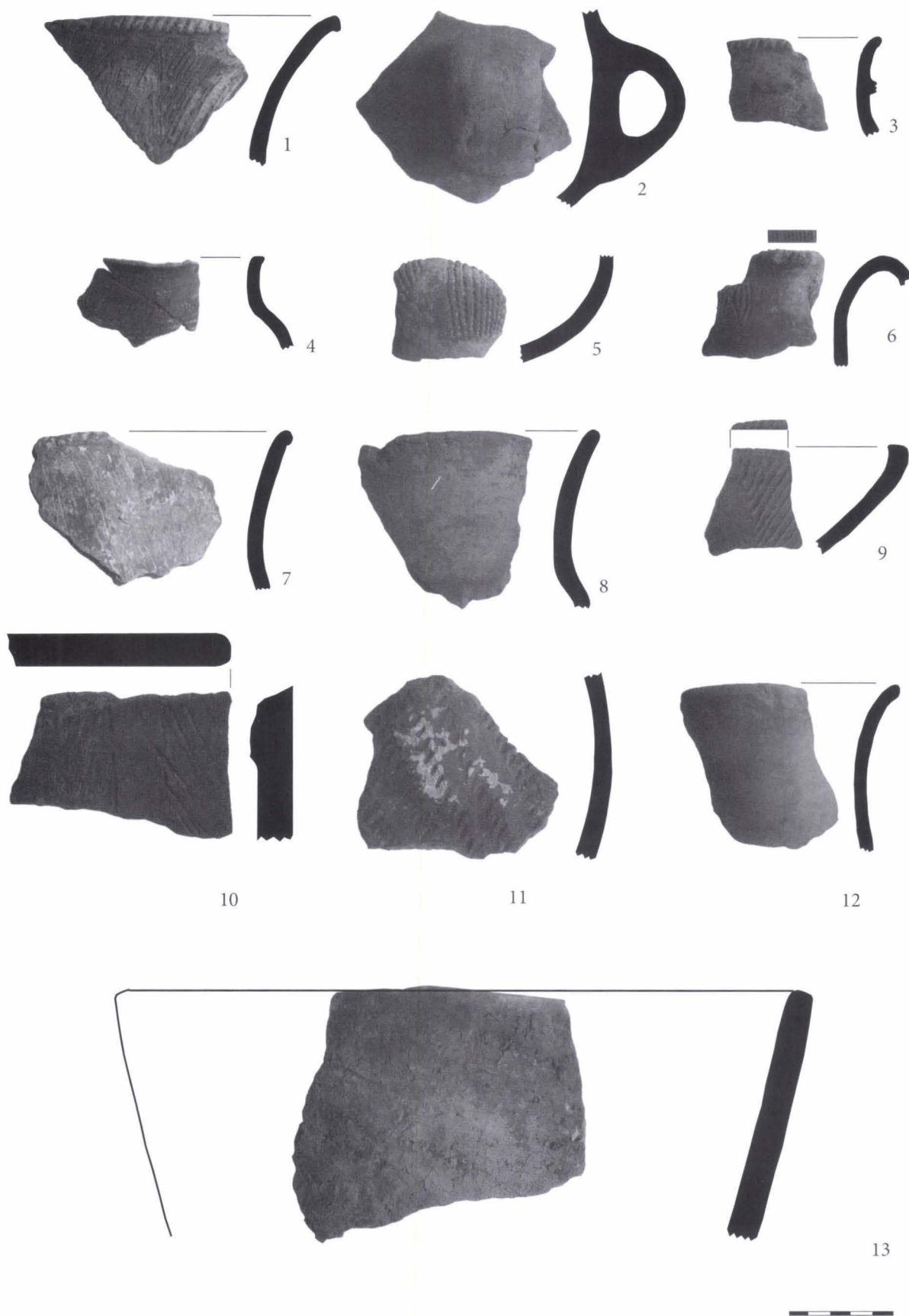


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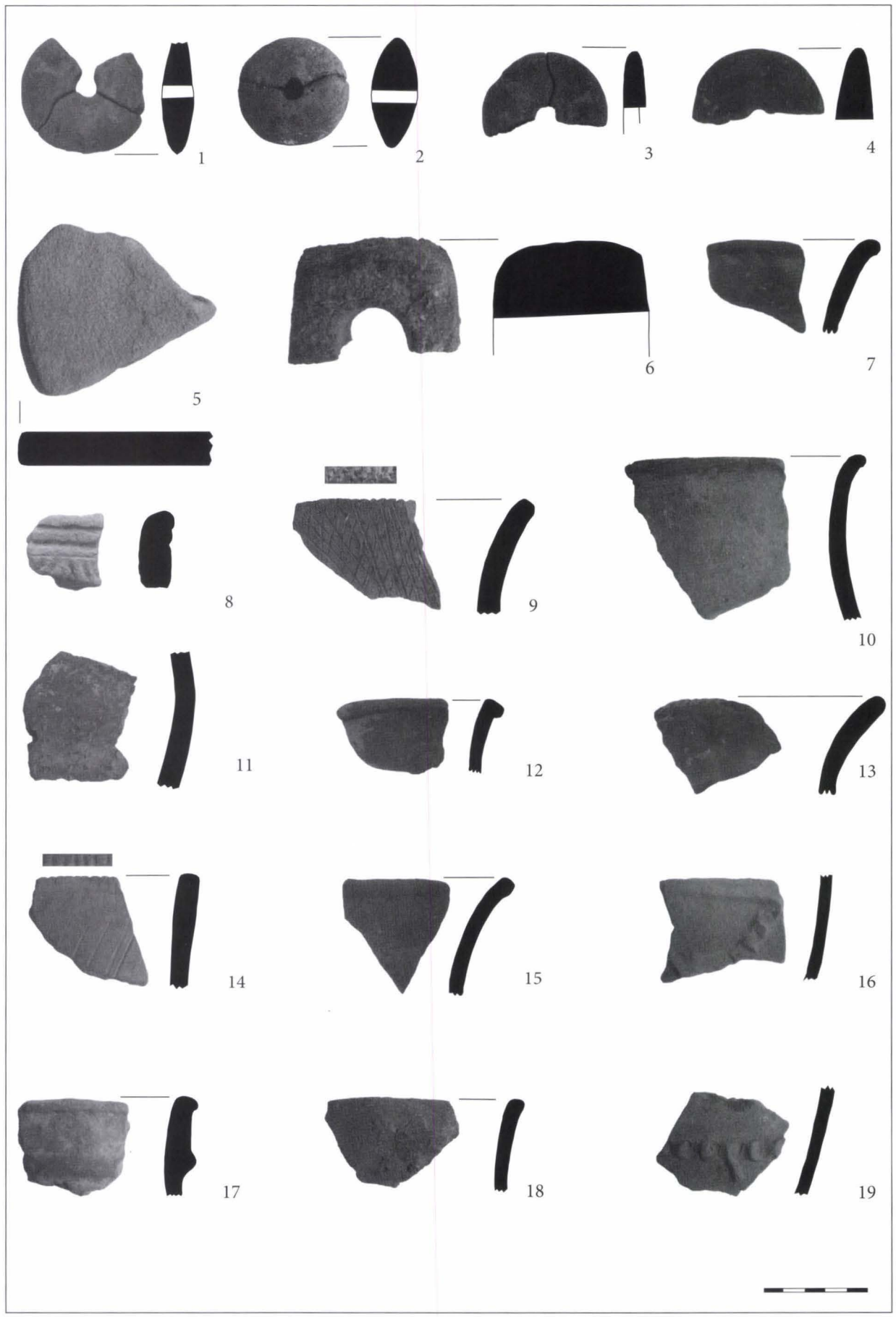


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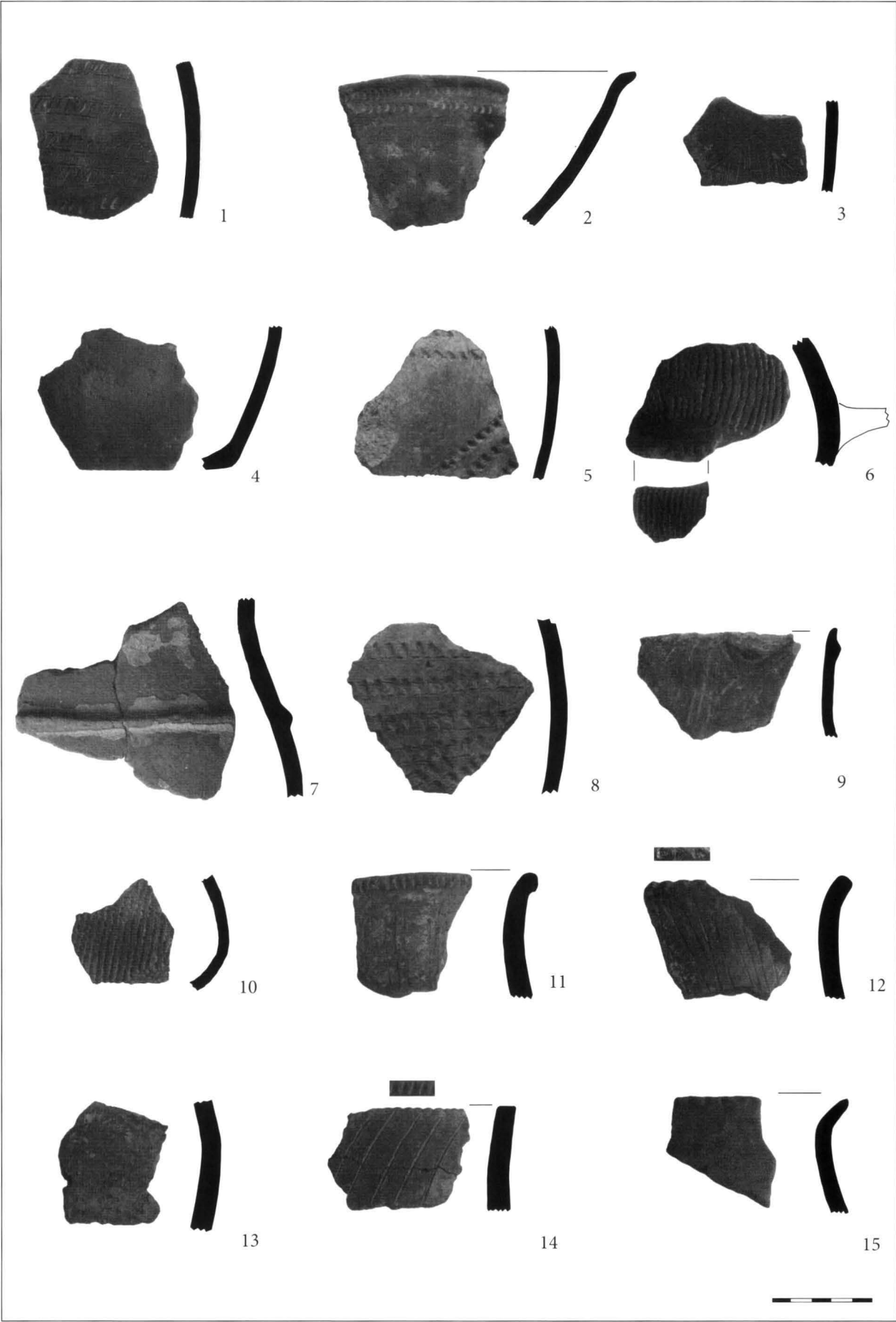


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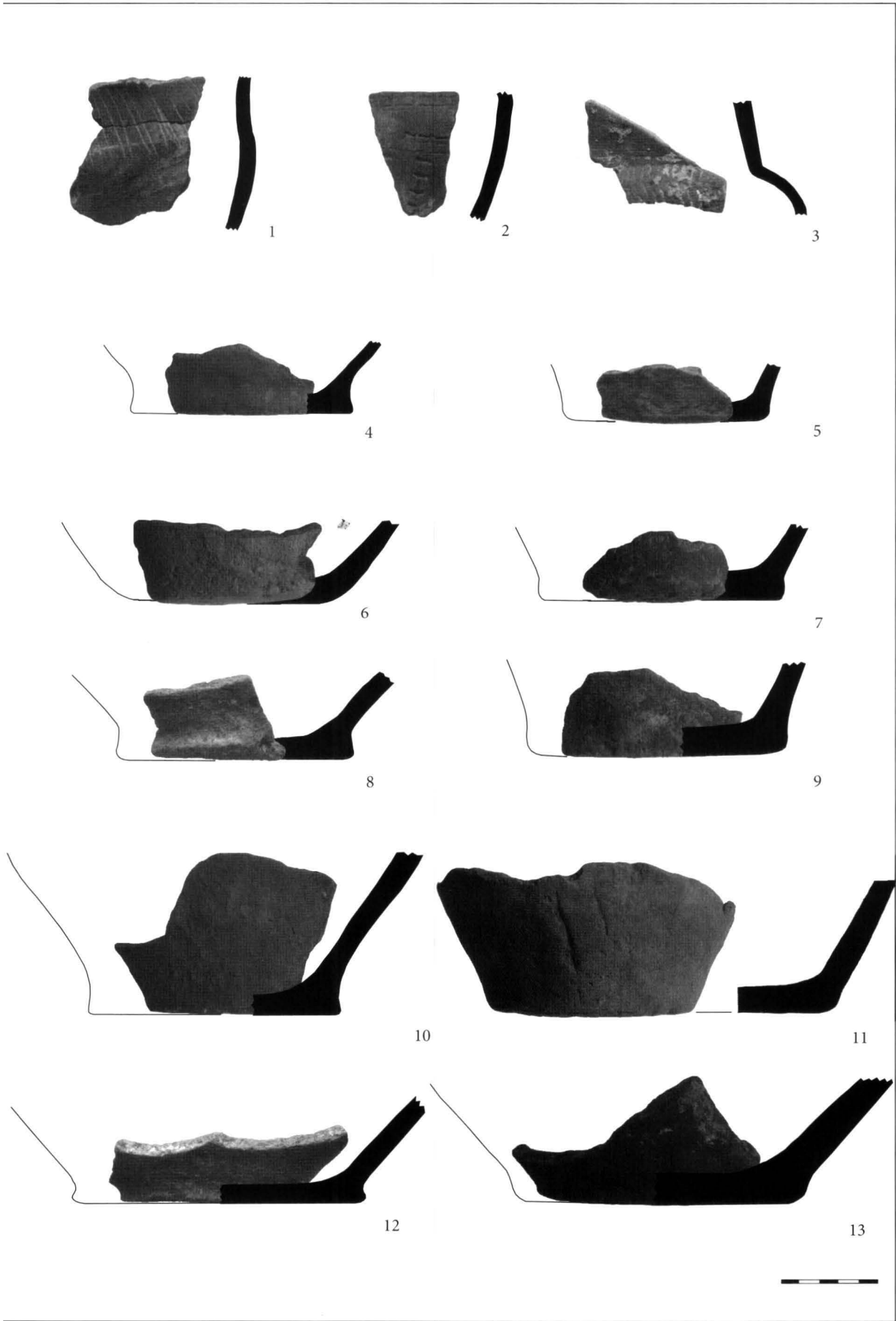


Plate 9. Șincai–Cetatea Păgânilor. Pottery.
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„DU BIST, WAS DU IßT“ ZU DEN KOCHSITTEN DER WIETENBERG- UND DER NOUA-KULTUR

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Schlüsselwörter: Kochsitten, gesellschaftlicher Identifikationsfaktor, Tonkugeln, Tonprismen, Wietenberg-Kultur, Noua-Kultur, Rotbav

Die Ernährung, Grundlage des Lebens, nimmt unbestritten in der Geschichte der Menschheit einen hohen Stellenwert ein. Doch auch im Rahmen der sozialen Identitätsbildung ist die Rolle der Nahrungsaufnahme entscheidend. Das Ziel des vorliegenden Artikels ist, kulturspezifische Ernährungsweisen anhand der archäologischen Befunde der bronzezeitlichen Siedlung von Rotbav zu identifizieren und ihre mögliche Rolle als gesellschaftlicher Identifikationsfaktor zu untersuchen. Die Ausgrabungen¹ in Rotbav, Kr. Braşov galten einer mehrfach stratifizierten Siedlung der Bronzezeit. Die ersten drei Horizonte gehören der Wietenberg-Kultur an, die Horizonte 4 und 5 der Noua-Kultur und Horizont 6 der Gáva-Kultur.² Aus den stratigraphischen Horizonten der Wietenberg- und der Noua-Kultur stammen mehrere Befunde, die interessante Betrachtungen zu unterschiedlichen Kochgewohnheiten in den beiden Kulturen erlauben. Diese werden im Folgenden vorgestellt.

Die Ernährung in der Zeit der Wietenberg-Kultur (Horizonte 1–3 von Rotbav)

Tonprismen (Feuerböcke)

Insgesamt stammen 28 Tonprismen aus der Siedlung, die Hälfte davon gehört den Horizonten 1–3 der Wietenberg-Kultur an (Anhang 1). Wie aus dem Fundkatalog deutlich wird, zeigen sie in den Horizonten 1–6 Veränderungen, die sowohl ihre Form, als auch ihre Funktion betreffen. Aus den Horizonten 1–3 der Wietenberg-Kultur stammen große, schwere, pyramidenförmige Tonprismen mit breiter Basis. Die meisten davon kommen im Kontext von Feuerstellen vor oder zeigen sekundäre Brandspuren. Sehr aufschlussreich in dieser Hinsicht ist ein Befund (Struktur 1), der als Wohnhaus mit einer vollständigen Einrichtung mit Feuerstelle und Feuergrube interpretiert werden kann (Abb. 1).

Das Haus ist in einem Brand zerstört worden. In der Nordecke befand sich eine Agglomeration von großformatigen Gefäßfragmenten der feinen und groben Ware, von hier

¹ Archäologischen Untersuchungen in der Siedlung fanden 1970–1973 (unter der Leitung von A. Vulpe und M. Marcu) und 2005–2009 (unter der Leitung von A. Vulpe, L. Dietrich und O. Dietrich) statt.

² Vulpe u. a. 2007; Dietrich–Dietrich 2008; Dietrich–Dietrich 2009 (Grabungskampagnen 2006–2008).

stammen auch Fragmente von einem Sieb- oder Räuchergefäß. Die Position sowie die große Konzentration der Keramikfragmente in diesem Bereich des Hauses deuten möglicherweise darauf hin, dass hier das Geschirr gelagert und beim Hausbrand zerstört worden ist. Mit großer Wahrscheinlichkeit kann dieser etwa 1–2 m² große Bereich als „Geschirrecke“ angesprochen werden. In der westlichen Hälfte des Hauses fanden sich zwei Aktivitätsbereiche. Bei einem handelt es sich wohl um einen Bereich zum Aufbewahren und Vorbereiten der Nahrung. Neben einer Vorratsgrube mit zwei Gefäßen, die Reste von verkohlten Getreidekörnern enthielten (von denen nur Weizen, *Triticum monococcum*,³ identifiziert werden konnte), lagen Fragmente von einem Mahlstein.

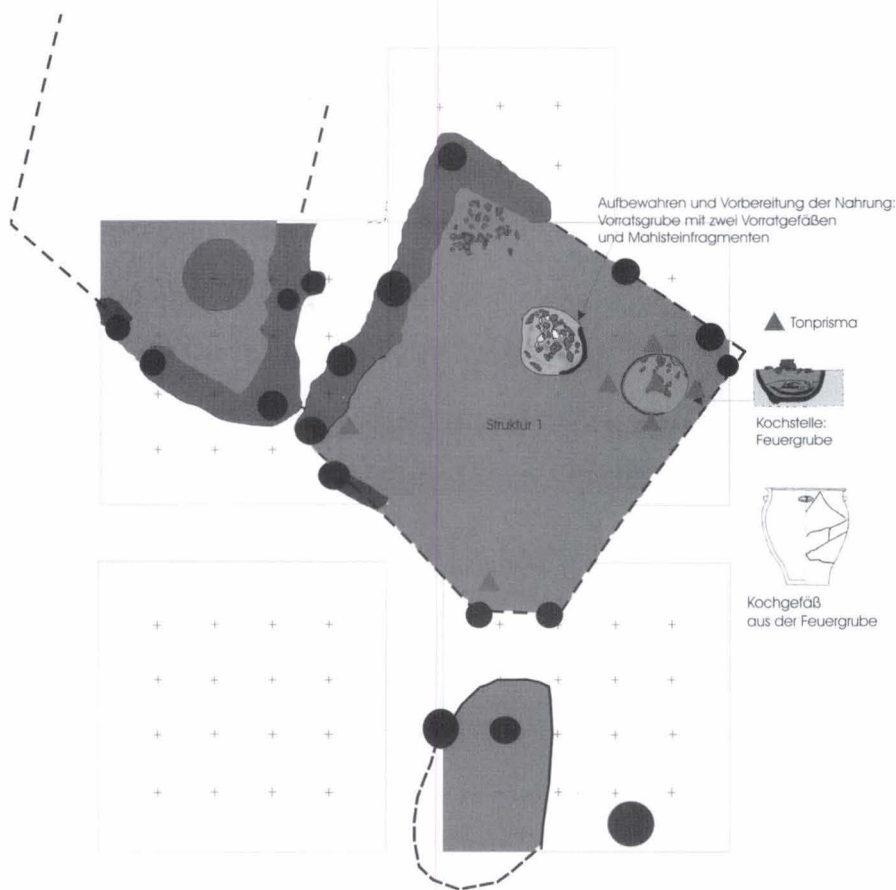


Abb. 1. Rotbav. Struktur 1.

Etwa 1 m weiter befand sich als zweite Aktivitätszone die eigentliche Kochstelle. Es handelte sich um eine Feuergrube mit mehreren Nutzungsphasen, in der ein umgekipptes Gefäß lag. Das Gefäß beinhaltete mehrere Samenarten⁴ und kleine Tierknochen, was darauf hinweist, dass wir es mit einem Getreidebrei mit Fleischstücken zu tun haben.

Am Rande und auf der Feuergrube wurden mindestens fünf ganze Tonprismen und Fragmente von solchen gefunden (Taf. 1/1–4), zwei weitere stammen aus dem Innenbereich des Hauses. Alle Tonprismen sind durchschnittlich 10 cm hoch und haben eine ebene Bodenfläche, die für einen stabilen Stand ausgelegt zu sein scheint. Alle laufen kegel- oder pyramidenförmig nach oben aus und enden in einer ebenen Scheitelfläche. Bei drei Stücken ist die Standfläche etwa doppelt so groß wie die Scheitelfläche. Im oberen Teil sind die Tonprismen waagrecht, leicht

³ Stăvrescu-Bedivan, i. V.

⁴ Stăvrescu-Bedivan i. V.

schräg gelocht. Die fünf Tonprismen aus der Feuerstelle zeigen zahlreiche muschelige Risse an der Oberfläche.

Im Regelfall werden in der archäologischen Literatur solche Tongegenstände von pyramiden- oder konischer Form mit einem durchgehenden Loch als „Webgewichte“ oder „Netzsenker“ bezeichnet.⁵ Abgesehen von ihrem Kontext, auf und neben der Feuerstelle, gibt es mehrere Hinweise, dass die Tonprismen aus Struktur 1 keine Webgewichte sind.

Ein wichtiger Hinweis für ihre Nutzung sind vor allem die Abnutzungspuren am Rand der Durchlochungen. V-förmige Einkerbungen und feine Rillen waren vor allem im unteren Teil der Durchlochung sichtbar, außerdem sind die Löcher leicht nach unten gerichtet. Neben der breiten Standfläche weist diese Tatsache darauf hin, dass die Tonprismen nicht aufgehängt wurden, denn in diesem Fall wären Abnutzungsspuren im oberen Teil der Löcher zu erwarten und die Standflächen nicht so groß. All dies deutet darauf hin, dass die Tonprismen von Struktur 1 wahrscheinlich als Feuerböcke oder als Äquivalent von Hitzesteinen benutzt worden sind.

A. Dittmann untersuchte die über 600 in der spätneolithischen bis frühbronzezeitlichen Siedlung von Donja Dolina (Bosnien) gefundenen Tonprismen, denen er eine Funktion als künstlich hergestellte Kochsteine zuweist.⁶ Die Prismen aus Donja Dolina weisen eine nahezu identische Form zu den Prismen aus Rotbav auf. In seinen Analysen zur Wärmespeicherungskapazität und -leitfähigkeit unterschiedlicher Gesteine und Objekte aus gebranntem Ton stellte er fest, dass Tonprismen eine größere Wiederverwendbarkeit als die analysierten Gesteine besäßen, bzw. unbeschadet mehr Kochvorgänge überstanden als die Steine. Ein anderer wichtiger Grund zur Herstellung künstlicher Kochsteine war nach Dittmann die feste, glatte Oberflächenstruktur der Tonprismen, die ein Abbröckeln von Partikeln beim Abschrecken in der zu erwärmenden Flüssigkeit ausschloss. Im Gegenteil wurde bei Sedimentgesteinen beobachtet, dass sich kleinere Partikel schnell ablösten. Mit Hilfe der größeren Tongebilde (etwa über 20 cm groß) war es möglich, Flüssigkeiten rasch bis zum Siedepunkt zu erhitzen, während die kleineren dazu dienten, durch gelegentliches Nachwerfen eine bestimmte Temperatur zu halten. Spuren eines mehrfachen Wechsels von starkem Erhitzen und raschem Abkühlen wären muschelförmige Bruchstrukturen auf der Oberfläche der Tongebilde. Wie angemerkt sind solche Risse auf den in Struktur 1 gefundenen Prismen vorhanden. Zusätzlich sind schwarze Flecken von Feuereinwirkung, vor allem in ihrem unteren Teil, feststellbar.

Eine Nutzung als Ersatz für Kochsteine erscheint mir für die Rotbaver Stücke angesichts ihrer erheblichen Größe im Vergleich zu den in Frage kommenden Gefäßen als unwahrscheinlich, nicht auszuschließen wäre jedoch eine Form der Nutzung in mit Leder o. ä. ausgekleideten Gruben. Eine andere Möglichkeit wäre eine Nutzung als Ständer für das Gefäß oder als Spießhalter. Vor allem für die zweite Variante sprechen die Art der Durchlochung der Tonprismen und die Tatsache, dass die im Topf gefundenen Knochen schwarze Brandpuren aufwiesen. Es erscheint möglich, dass die Fleischstücke auf Spießen zubereitet und später zusammen mit dem gekochten Getreidebrei verzehrt wurden.

Folglich können die in Struktur 1 gefundenen Tonprismen als Instrumente der Nahrungszubereitung interpretiert werden. Die übrigen aus den Wietenberg-Horizonten bekannten Stücke sind kontextlos, jedoch weisen sie ähnliche formale Eigenschaften wie die oben beschriebenen auf. Dies deutet darauf hin, dass sie ähnlich benutzt worden sind. Natürlich kann nicht

⁵ Für die Wietenberg-Kultur siehe z. B. Boroffka 1994, 177, Typentafel 7; 45–48.

⁶ Dittmann 1990, 113–117, 310, Abb. 9.

ausgeschlossen werden, dass die Tonprismen mehrere Funktionen aufweisen und auch als Webgewichte und Netzsener eingesetzt wurden, trotzdem deuten die gefundenen Stücke darauf hin, dass eine Funktion als Spießhalter und Wärmespeichermittel wahrscheinlicher ist.

Aus den Horizonten 4–5 von Rotbav (Noua-Kultur) stammen wenige Tonprismen (siehe Anhang 1). Sie weisen ungefähr die gleiche Form wie die Stücke aus den Horizonten 1–3 auf, sind aber im Unterschied senkrecht und nicht waagrecht gelocht und zeigen keine sekundären Brandspuren. Die Kontexte sind nicht klar genug, um ihre Funktion bestimmen zu können, doch muss deutlich festgehalten werden, dass sie nie im Kontext von Feuerstellen auftauchen. Diese Hinweise deuten darauf, dass die Tonprismen aus den Noua-Horizonten nicht in der Nahrungszubereitung benutzt worden sind, sie scheinen eine andere Funktion als die Wietenberg-Stücke aufzuweisen.

Ähnliche Tonprismen im Bereich der Wietenberg-Kultur stammen z. B. aus Feldioara,⁷ Cașinu Nou⁸ und Merești-Almașer Höhle,⁹ ohne dass ihre exklusive Nutzung als Feuerböcke zu erwarten wäre. In mindestens noch einem Fall wurden Tonprismen der Wietenberg-Kultur allerdings im Kontext von Feuer angetroffen. Es handelt sich um einen Befund aus Cluj-Strada Banatului, wo bei einer Rettungsgrabung eine glockenförmige Grube mit einem reichen Fundinventar aufgedeckt wurde.¹⁰ Auf ihrem Boden befanden sich Gefäße und verbranntes Getreide sowie Hülsenfrüchte (Weizen, Sesam, Kichererbsen, Buchweizen) sowie viel Asche. Am Rand der Grube lagen zwei Tonprismen. Obwohl die Ausgräber einen kultischen Charakter des Befundes vermuten, kann angemerkt werden, dass auch hier, wie in Rotbav, Tonprismen und verbranntes Getreide bzw. Hülsenfrüchte kombiniert sind, was eher für eine Funktion bestimmter Tonprismen im Bereich der Nahrungszubereitung spricht. Wir wollen allerdings nicht ausschließen, dass auch Kochen Teil ritueller Handlungen sein kann.

Der Pyraunos

2005 wurde in Rotbav ein in situ erhaltener tragbarer Ofen (Pyraunos) entdeckt (Bef. 17, Abb. 2). Pyraunosfragmente oder sogar ganze Stücke wurden in den neuen und alten Ausgrabungen gefunden, dies ist jedoch der einzige Fund aus einem klaren Kontext.

Es handelte sich um eine glockenförmige Grube aus Horizont 3 der Wietenberg-Kultur, mit zahlreichen Brandspuren sowie einer von Steinen umgebenen Feuerstelle auf dem Boden. In der Grube, etwa 0,15 m über der Feuerstelle stand der zerbrochene Pyraunosständer, die oberen Fragmente des Behälters lagen geschichtet darüber. Die Fragmente des Fußes lagen entsprechend der ursprünglichen Aufstellung im Kreis. Auf ihrer inneren Seite, ursprünglich ebenfalls kreisförmig, fanden sich große, verbrannte Steine von quadratischer Form mit einer abgeflachten Oberfläche. Es waren Teile eines zerbrochenen Mahlsteines aus rotem Andesit, die den Rand einer Feuerstelle markierten. Zwischen den Steinen wurden zahlreiche Brandspuren bemerkt: Holzkohlereste, Asche und rot gebrannter Lehm. Die Verfüllung zwischen den oberen Pyraunosteilen und dem Ständer hatte eine gelbliche Farbe und beinhaltete höchstwahrscheinlich organische Reste. 0,10 m vor den Pyraunosteilen, in einem dunkelgrau-schwarzen Bereich auf dem Boden der Grube, lag eine Konzentration von unverbrannten Tierknochen. Es handelt sich wohl um die Reste eines unvollständigen Skelettes eines Hundes (nach mündlicher Information

⁷ Boroffka 1994 Taf. 80/1.

⁸ János-Kovács 1967, Taf. 12, 25.

⁹ Boroffka 1994 Taf. 91/1.

¹⁰ Rotea-Wittenberger 1999.

des bei der Grabung 2005 anwesenden Archäozoologen, eine endgültige Bestimmung liegt leider noch nicht vor).

Die Grube war mit Sicherheit ursprünglich nicht tiefer als 1,0 m (zum Zeitpunkt der Ausgrabungen waren noch 0,80 m erhalten), sonst wäre der Pyraunos nicht mehr zu entnehmen gewesen. Die Form der Grube scheint so gewählt zu sein, dass sie einen guten Schutz gegen den Wind bot. Die Grubenwände waren nicht verziegelt und hatten keine offensichtlichen Brandspuren. Asche und Holzkohle lagen nur auf dem Boden der Grube und innerhalb des Pyraunos-Ständers. Entweder wurde Glut von oben in die Grube eingebracht und der Pyraunos darauf gestellt, oder aber das Feuer wurde nur wenige Male entzündet.

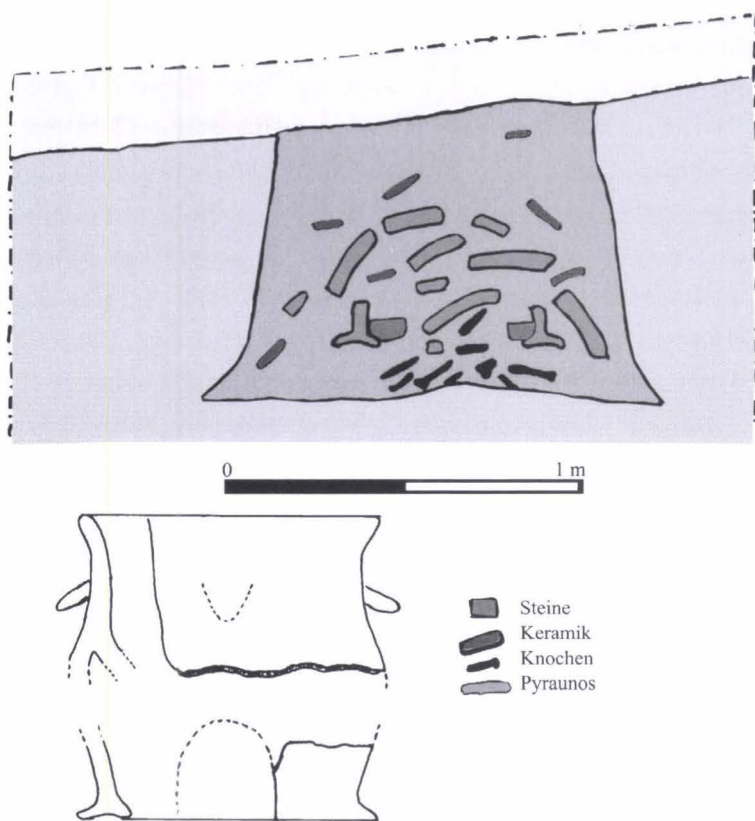


Abb. 2. Rotbav. Der Pyraunos.

Die geschlossene Form des Ständers dürfte dafür gesorgt haben, dass selbst bei wenig Glut die Hitze direkt auf den Behälter gelenkt wurde. Über die Glut wurde dann der Pyraunos gesetzt. Nach Berechnungen lag die Mündung des Behälters nicht viel tiefer als die Grubenmündung (wohl bis zu 0,30 m), so dass der Kochprozess (z. B. das Rühren des Inhalts) nicht erschwert wurde. Er konnte mit Hilfe der Handhaben von der Glut genommen und herausgetragen werden. Die unverbrannten Tierknochen, die auf dem Boden der Grube lagen, können als Reste von Nahrung verstanden werden.

Der rekonstruierte Behälter weist ein ziemlich großes Volumen (vermutlich von über 20 Litern) auf. Der untere Teil des Pyraunos ist rot, sekundär gebrannt, der obere Teil behielt die wohl ursprüngliche, dunkelgraue Farbe. Die Brandspuren deuten auf eine mehrmalige Nutzung der Feuergrube hin. Darauf weist auch die Tatsache, dass der Ständer auf einer etwa 0,15 m hohen Schicht von Brandresten stand.

In der Grubenverfüllung lagen zahlreiche Keramikfragmente sowie eine Knochenahle. Die Keramikfragmente fanden sich teilweise auch zwischen den Pyraunosteilen. Bei den meisten handelt es sich um Töpfe der groben Ware, die möglicherweise im Kochprozess benutzt worden sind. Es kann aber nicht ausgeschlossen werden, dass einige Funde später in die Grube gelangt sind, zumindest die im oberen Teil der Verfüllung entdeckten.

Zahlreiche Hinweise, wie die Anwesenheit von nicht verbrannten Tierknochen und organischen Resten zwischen den Pyraunosfragmenten sowie mehrerer Mahlsteinfragmente führen zu dem Schluss, dass es sich um eine Einrichtung zur Nahrungszubereitung handelt. Gleichzeitig deuten die unverbrannten Tierknochen auf einen Verzehr von gekochtem Essen hin.

Ähnliche Befunde werden in der Literatur aus den Wietenberg- und Noua-Siedlungen von Olteni und Zoltan in Südostsiebenbürgen erwähnt, wobei sie teilweise der Noua-Kultur zugeordnet werden.¹¹ Es handelt sich um mehrere Gruben mit reichlich Brandspuren (Asche und Holzkohle) und Fragmenten von massiven Gefäßen (wahrscheinlich Pyraunoi) aus einer ähnlichen Ware wie in Rotbav (nach den veröffentlichten Fotos zu urteilen, siehe unten). Ein Pyraunos wurde in einer runden, nicht sehr tiefen Grube an der Basis der Aschehügelschicht von Zoltan gefunden. Die von Cavruc u. a. veröffentlichten Gefäßreste (Photos), allerdings ohne graphische Rekonstruktion, und die Beschreibung der Fundumstände sind dem Befund 17 aus Rotbav sehr ähnlich. Cavruc u. a. rekonstruieren die Gefäße oval; der Pyraunos aus Rotbav hat einen runden Behälter. Einige veröffentlichte Fußstücke/Ständerstücke weisen eine identische Form wie in Rotbav auf. Die Größe der Behälter beträgt $0,50 \times 1$ m, also eine ähnliche Größe wie bei dem Behälter aus Rotbav. Cavruc u. a. setzten die Befunde in Verbindung mit der Noua-Kultur und deuteten sie als Abfallgruben oder Deponierungen. Die Gefäßfragmente sollen zusammen mit Asche und Holzkohle entsorgt oder deponiert worden sein. Befundprofile wurden jedoch nicht veröffentlicht. Es kann sich trotzdem um ähnliche Installationen wie in Rotbav handeln, deren Position „in situ“ möglicherweise unzureichend beobachtet wurde.

Die ursprüngliche Funktion der „Gefäße“ soll die Salzgewinnung aus Sole gewesen sein, obwohl Analysen eventueller Rückstände von Gefäßinhalten fehlen. Die Existenz solcher Behälter in der Siedlung von Olteni setzten Cavruc u. a. in Verbindung mit der Existenz von Solequellen in deren Nähe.¹² Die Solequellen befinden sich allerdings für Olteni und Zoltan in 1,5 km bzw. 5 km Entfernung. Wenn eine Nutzung der Solequellen angenommen wird, wäre die Entfernung für einen Transport der Sole in die Siedlung ziemlich groß. Einfacher wäre der Transport von fertigem Salz. Die Gewinnung des Salzes müsste in diesem Fall an der Stelle der Solequelle vorgenommen worden sein.

Für die Existenz von Einrichtungen zur Salzgewinnung direkt an den Solequellen ohne eigentliche Siedlungen sprechen z. B. die Befunde aus Băile Figa (Nordostsiebenbürgen, Kr. Bistrița-Năsăud). Hier fand man zahlreiche Holzkonstruktionen neben einer Solequelle, die nach C14-Messungen hauptsächlich zwischen 1600–1500 und 1050–915 v. Chr. datieren.¹³ Die architektonischen Einrichtungen und andere Holzgegenstände wie z. B. Tröge sprechen für eine Ausbeutung des Salzes direkt vor Ort,¹⁴ pyraunosartige Gefäße hingegen fehlen. Die Holzgefäße bieten auch eine Erklärung für das Nichtauftreten von keramischer Briquetage in der Bronzezeit Rumäniens. Dass Pyraunoi nicht zur Salzgewinnung benutzt wurden, beweist zuletzt auch ihre Verbreitung. Die meisten Funde von früh- bis spätbronzezeitlichen Pyraunoi konzentrieren sich in Westsiebenbürgen und im Westbalkanraum.¹⁵ Die Verbreitung der Salzvorkommen hingegen zeigt eine Konzentration beiderseits der Karpaten und in der Siebenbürgischen Hochebene. Mit anderen Worten kommen die Pyraunoi am häufigsten dort vor, wo das Salz fehlt. Ihre Verschiebung innerhalb Siebenbürgens nach Westen in der späten Bronzezeit fällt mit einer Verschiebung der Wietenberg-Kultur nach Westen zusammen.¹⁶ Dies zeigt eindeutig eine kulturgebundene Benutzung der Pyraunoi, eine spezifische Kochtradition und nicht eine Funktion der Pyraunoi im Rahmen der Salzgewinnung an.

¹¹ Cavruc u. a. 2006, 42–46, 208, Nr. 71.

¹² Cavruc u. a. 2006, 42–46.

¹³ Cavruc u. a. 2006, 44–46; Cavruc 2009a; Cavruc 2009b, 29–30.

¹⁴ Cavruc u. a. 2006, 45.

¹⁵ Romsauer 2003, Karte 3.

¹⁶ Boroffka 1994, Karte 58.

Außerhalb Südostsiebenbürgens stammen mehrere mit dem Stück aus Rotbav vergleichbare Pyraunoi aus Siedlungen der Wietenberg-Kultur. Der Pyraunos (Bef. 17) aus Rotbav ist vom Typ TN 1 mit Ständer und Gefäß nach Boroffka, der mit 13 Stück den meist verbreiteten Pyraunostyp in der Wietenberg-Kultur darstellt.¹⁷ Ähnliche Stücke stammen aus Kastanas.¹⁸ Bei keinem Fund aus der Wietenberg-Kultur ist jedoch der Kontext veröffentlicht, so dass ein Vergleich mit Rotbav nicht möglich ist. Es erscheint jedenfalls wahrscheinlich, dass in zahlreichen Siedlungen der Wietenberg-Kultur Pyraunoi existierten, die bislang nicht als solche erkannt worden sind, eine ähnliche Situation, wie sie zum Beispiel von Hochstetter für Griechenland festgestellt wurde.¹⁹

Weitere Pyraunoi stammen in Südostsiebenbürgen aus der Wietenberg-Siedlung von Cernat²⁰ und aus einem bislang nur am Rande erwähnten Kontext aus Zăbala. P. Romsauer zitiert eine mündliche Mitteilung von V. Cavruc;²¹ der Befund wird im Fundrepertorium für den Kreis Covasna allerdings nicht erwähnt.²² Beide Pyraunoi sind in Phase III der Wietenberg-Kultur datierbar, ähnlich wie Befund 17 aus Rotbav.

Die Funktion der beiden Pyraunoi ist angesichts der zur Verfügung stehenden Informationen nicht zu spezifizieren. Auf dem Pyraunos-Ständer aus Cernat sollen in situ eine anthropomorphe Figurine und ein konischer Gegenstand (?) gestanden haben, was auf eine mögliche kultische Funktion hindeutet. Der Pyraunos-Ständer gehört zum Typ D 1 nach Romsauer, die Form kommt nur vereinzelt in der Wietenberg-Kultur vor, neben der Siedlung von Cernat noch in Sighişoara.²³ Pyraunoi mit einer wahrscheinlich kultischen Funktion sind in der Wietenberg-Kultur z. B. aus der Kultstätte von Oarța de Sus²⁴ bekannt und müssen von den „normalen“ Pyraunoi (Kochgefäße) unterschieden werden.

Der Befund aus Rotbav weist auf eine Funktion der Pyraunoi als Kochgefäße hin. Eine ähnliche Hauptfunktion wurde für Pyraunoi aus dem Westbalkan²⁵ angeführt. Für die Pyraunoi aus Griechenland rechnet man ebenso mit einer Nutzung als Kochgefäße.²⁶ Mit Sicherheit muss man auch bei den Pyraunoi aus Südostsiebenbürgen mit einer Funktion als Kochgefäße rechnen. Pyraunoi sind an das Wietenberg-Milieu und weiter im Westen an die Otomani- und Suciu de Sus-Kulturen, also an eine westliche Tradition gebunden. Der Pyraunos (Bef. 17) aus Rotbav und die meisten Pyraunoi der Wietenberg-Kultur entsprechen dem Typ A 1 nach Romsauer, der in der frühen und mittleren Bronzezeit im Karpatenbecken und im Balkan am weitesten verbreitet ist. In der späten Bronzezeit und in der frühen Eisenzeit verschiebt sich die Verbreitung der Pyraunoi wie angemerkt nach Westen.²⁷ Sie zeigt also ein entgegengesetztes Bild zur Ausbreitung der Noua-Kultur. Pyraunoi fehlen nicht nur im Milieu der Noua-Kultur, sondern überhaupt in den östlichen mittel- und spätbronzezeitlichen Kulturen.²⁸ Ein einziger Pyraunos stammt mit der Siedlung von Radovanu aus dem Coslogeni-Milieu.²⁹

¹⁷ Boroffka 1994, 168.

¹⁸ Hochstetter 1984, 155, Abb. 43, Typen 2 und 4.

¹⁹ Hochstetter 1984, 164.

²⁰ Boroffka 1994, 94, Nr. 539, 168–169; Romsauer 2003, 124 Nr. 135.

²¹ Romsauer 2003, 132 Nr. 136.

²² Cavruc 1998.

²³ Horedt–Seraphim 1971, Abb. 55 /14–19; Romsauer 2003, 47–48, Karte 8.

²⁴ Kacsó 1987, Abb. 28; Kacsó 1998, Abb. 5.

²⁵ Bóna 1975, 250–251; Romsauer 2003, 73.

²⁶ z. B. Hochstetter 1984, 157 für Kastanas.

²⁷ Romsauer 2003, 31, 173, Abb. 3/A1, Karte 2–4.

²⁸ Romsauer 2003, Karte 1.

²⁹ Moscalu 1976, 83.

In Südostsiebenbürgen scheinen Pyraunoi zum ersten Mal in Rotbav Horizont 3, also der Wietenberg-Kultur aufzutreten, wobei weitere Forschungen dieses Bild ändern können. Die Richtung der Ausbreitung weist von Westen (Westsevenbürgen), wo sie früher belegt sind (z. B. Derșida, ab der Schicht 2³⁰) nach Osten.

Zusammenfassend kann festgestellt werden, dass der Pyraunos (Bef. 17) aus Rotbav einen weiteren Beleg für die Nutzung der Gefäßgattung als Kochgerät darstellt und den ersten für die Wietenberg-Kultur. Die Form entspricht weitverbreiteten Typen in den früh- bis spätbronzezeitlichen Kulturen des Karpatenbeckens und des Westbalkans. Die Herkunft muss eindeutig in den klassischen Kulturen der Bronzezeit des Karpatenbeckens gesucht werden und nicht in der Noua-Kultur. In diesem Zusammenhang müssen wahrscheinlich auch die Pyraunoi von Olteni und Zoltan gesehen werden. Die Ständer aus Rotbav und Cernat hingegen stellen Einzelformen dar, die beim derzeitigen Forschungsstand als Sondererscheinungen zu betrachten sind.

Mahlsteine

Mahlsteine sind in Rotbav in den Horizonten 1–3 der Wietenberg-Kultur reichlich nachgewiesen. Sie kommen entweder in Kombination mit großen Vorratstöpfen vor (wie in Struktur 1) oder im Kontext von Feuerstellen (Bef. 17, oben beschrieben, sowie in zwei weiteren Fällen), in sekundärer Verwendung als Feuerstellenmarkierung. Zahlreiche Fragmente stammen aus den Abfallablagerungen in Häusern und im Außenbereich derselben.

Ihr zahlreiches Vorkommen deutet auf einen Verzehr gemahlenen Getreides hin, Installationen zum Brotbacken (wie Backwannen oder ähnliches) sind jedoch hier nicht nachgewiesen. Trotzdem schließen die archäologischen Spuren nicht eine Nutzung von Installationen aus Holz aus. Brotfladen können unmittelbar auf der glühenden Feuerstelle gebacken werden. Gerade in der Wietenberg-Kultur gibt es in Rotbav Feuerstellen mit auffällig glatt gestrichenen, tönernen Oberflächen, die nach einer gewissen Zeit der Erhitzung möglicherweise diesem Zweck gedient haben können.

Archäozoologische Anmerkungen

Archäozoologische Analysen für das Knochenmaterial aus den Horizonten der Wietenberg-Kultur³¹ zeigen eine ausgeglichene Nutzung von Boviden und Ovicaprinen, diese Spezies dominieren das gesamte Tierspektrum; hauptsächlich wurden junge Fleischtiere nachgewiesen. Auch Schweine nehmen einen bedeutenden Anteil ein.

Die meisten Tierknochen sind kleinformatig und unverbrannt. Ihre Eigenschaften bestätigen den gewonnenen Eindruck einer Zubereitung des Essens durch Kochen, wahrscheinlich spielten Eintöpfe bzw. Breigerichte aus Getreide und Fleisch eine entscheidende Rolle in der täglichen Nahrung.

Obwohl Fische, Flussschnecken und Muscheln nur etwa 4% des Gesamttierspektrums ausmachen, muss man mit einem bedeutenderen Anteil an der täglichen Ernährung rechnen. Viele Befunde der Horizonte 1–3 wiesen vom Erddruck zerstörte, nicht mehr bestimmbare Schnecken und Muscheln in ihrer Verfüllung auf, so dass das archäozoologisch vermittelte Gesamtbild als von postdepositionalen Prozessen stark verzerrt verstanden werden sollte. Flussschnecken spielten in der Wietenberg-Kultur scheinbar auch eine kultische Rolle.³²

³⁰ Boroffka 1994, 169–169.

³¹ Bălășescu–Radu i. V.

³² Dietrich–Dietrich 2007.

Die Ernährung in der Zeit der Noua-Kultur (Horizonte 4–5 von Rotbav)

Ton- und Steinkugeln (Koch- und Hitzesteine)

Aus den Horizonten 4–5 der Noua-Kultur stammen zwei ganze Tonkugeln und über 40 Fragmente (Hälften oder Viertel) von solchen (Taf. 2). Die meisten Stücke kommen im Innenbereich von Häusern und im „Aschehügel“ vor (Anhang 2).

Alle Stücke aus Rotbav weisen zahlreiche muschelartige Risse an der Oberfläche auf. Wie auch bei den wietenbergzeitlichen Tonprismen deutet dies darauf hin, dass sie Prozessen von starkem Erhitzen und raschem Abkühlen unterworfen waren. Brandspuren weisen sie im Unterschied zu den Tonprismen nicht auf, was als Beleg dafür gelten kann, dass sie nicht in unmittelbarem Kontakt mit dem Feuer standen, trotzdem aber erhitzt wurden.

Runde Koch- oder Hitzesteine oder aus Ton hergestellte künstliche „Kochsteine“ sind von zahlreichen prähistorischen Fundplätzen bekannt, sie sind auch ethnologisch gut belegt³³ und weit verbreitet.³⁴ Nicht nur das Garen der Nahrung (in Gruben, mithilfe einer Tierhaut) sondern auch das Erhitzen von Flüssigkeiten (in Keramikbehältern oder o.ä.) und sogar der Einsatz von Kochsteinen zum Erreichen einer gewünschten Geschmackrichtung bezeugen die Vielfältigkeit ihrer Nutzung im Prozess der Nahrungszubereitung. Für die Noua-Kultur sind solche Tonkugeln zahlreich³⁵ aus fast jeder Siedlung bekannt, eine zusammenfassende Studie, die sich ihnen widmet, gibt es bislang nicht.

Die runde, kleinformatige Gestaltung der Rotbaver Tonkugeln und die oben ausgeführte Diskussion über ihre bessere Qualität im Vergleich zu den Gesteinen führt zu der Schlussfolgerung, dass sie als Koch- oder Hitzesteine gut geeignet waren, zumal ihre Größe gut zu der der Töpfe in den Horizonten 4–5 passt. Es muss ebenfalls erwähnt werden, dass zahlreiche (über 50) runde Steine aus den Horizonten der Noua-Kultur stammen, für die ebenfalls eine ähnliche Funktion angenommen werden kann.

Mahlsteine

Mahlsteine und Mahlsteinfragmente sind aus den Horizonten 4–5 kaum oder wenig bekannt. Aus der Abfallablagerung stammen zwar faustgroße Steine mit einer flachen Seite, sie befinden sich aber nicht in Häusern oder neben den Feuerstellen. Sicherlich schließt das nicht eine Herstellung von Backprodukten aus, doch sind die archäologischen Beweise viel weniger klar als bei der Wietenberg-Siedlung. Es muss jedoch erwähnt werden, dass aus anderen Siedlungen der Noua-Kultur Installationen wie vermutliche Kuppelöfen bekannt sind,³⁶ die zum Backen gedient haben können, allerdings ist die Beschreibung in der Literatur oft spärlich. So bleibt die Vermutung einer abweichenden Backtechnik in der Noua-Kultur (Öfen an Stelle von offenen Feuerstellen) momentan hypothetisch.

Archäozoologische Anmerkungen

Die archäozoologischen Untersuchungen zeigten Unterschiede zwischen den Horizonten der Noua-Kultur und denen der Wietenberg-Kultur, die sowohl die Auswahl der Haustiere als auch das Verhalten gegenüber diesen betreffen.

Während aus der Wietenberg-Siedlung eine ausgeglichene Zahl von Boviden und Ovicaprinen vorliegt, wurde in der Noua-Siedlung ein deutliches Überwiegen der Boviden festgestellt.

³³ Ausführlich Dittmann 1990, 19 ff.

³⁴ Dittmann 1990, 324–225, Karte 11.

³⁵ Sava 2005, 73.

³⁶ Sava 2005, 73.

Die Unterschiede betreffen auch die Arten der Tiernutzung: während für die Wietenberg-Kultur hauptsächlich junge Fleischtiere nachzuweisen sind, kann für die Noua-Kultur mit variierten Nutzungsmöglichkeiten gerechnet werden (u. a. die Ausbeutung sekundärer Produkte wie z. B. Milch, Haut und Wolle). Die Tiere wurden in der Noua-Siedlung in höherem Alter geschlachtet, entweder wenn sie die maximale Ausdehnung der Haut erreicht hatten (bei den Boviden) oder wenn sie das maximale Gewicht erreicht hatten (bei den Schweinen) oder wenn die Wolle an Qualität verlor (bei den Ovicaprinen).³⁷ Im Unterschied zu der Wietenberg-Siedlung finden sich keine Fische oder Schnecken und sehr wenige Muscheln.

* * *

Der vorliegende Aufsatz stellt den Versuch dar, Ernährungsgewohnheiten und Nahrungszubereitungsmöglichkeiten anhand der erhaltenen Befunde in der Siedlung aus Rotbav im Kontrast von Wietenberg- und Noua-Kultur zu untersuchen. Weiterhin werden sowohl archäologische, als auch ethnologische Parallele angeboten, um die vorgeschlagenen Theorien zu unterstützen.

Mahlsteine oder Kochtöpfe mit Nahrungsresten werden in der Regel als Belege für Nahrungszubereitung angegeben. Bei einer näheren Betrachtung finden sich aber im archäologischen Fundgut solche Gegenstände wie Tonprismen, Tonkugeln oder tragbare Öfen, die ebenso für diesen Zweck gedient haben müssen. Es wurde gezeigt, dass zwischen der Wietenberg- und der Noua-Kultur beträchtliche Unterschiede bestehen, die sich nicht nur in der Auswahl der Nahrung, sondern auch im Bereich der Kochsitten zeigen.

Die Rolle der Nahrungszubereitung als gesellschaftlicher Identifikationsfaktor kann nur durch Hypothesen umrissen werden. Die bislang in der Fachliteratur erörterte Theorie einer Polarisierung zwischen der sesshaften Wietenberg- und der nomadischen Noua-Kultur muss verworfen werden, denn neuere Untersuchungen bezeugen sowohl Sesshaftigkeit und Ackerbau in der Noua-Kultur,³⁸ als auch die Transhumanz für die Wietenberg-Kultur.³⁹ Nicht die Auswahl, sondern die Unterschiede in der Art und Weise der Nahrungszubereitung sind von Bedeutung, möchte man Unterschiede herausarbeiten, vor allem auch im Hinblick auf die postulierte Einwanderung der Träger der Noua-Kultur nach Siebenbürgen.

Verschiedene Theorien bewegen sich zwischen einer kontinuierlichen Entwicklung der Noua-Kultur aus den bronzezeitlichen autochthonen Kulturen, vorangetrieben durch östliche Einflüsse,⁴⁰ und einer Zuwanderung neuer Menschengruppen.⁴¹ Die Untersuchungen in der bronzezeitlichen Siedlung von Rotbav haben aufgrund der Änderung der Siedlungsstrukturen und des Fundmaterials ergeben, dass an diesem Fundplatz tatsächlich mit einem Zustrom einer neuen Bevölkerungsgruppe zu rechnen ist. Der scharfe Kontrast in der Ernährungsweise bestätigt dieses Bild. Die Neuankömmlinge scheinen ihre Ernährungssitten mitgebracht und durchgesetzt zu haben. Dieser Befund wird auch von soziologischen Studien bestätigt, die zeigen, dass Essen eine soziale Bindefunktion und einen bedeutenden Stellenwert für die kulturelle Identität aufweist. Migranten behalten ihre Essgewohnheiten zum großen Teil auch fern ihrer Heimat

³⁷ Bălăşescu-Radu i. V.

³⁸ Sava 2005.

³⁹ Dietrich 2010.

⁴⁰ z. B. Florescu 1964.

⁴¹ z. B. Hänsel 1976; Sava 2002.

bei, auch wenn die Beschaffung der passenden Lebensmittel sich teilweise nicht ganz einfach gestaltet.⁴² Man ist also, zumindest bis zu einem gewissen Grade und ganz sicher im bronzezeitlichen Rotbav, was man ißt.

ANHANG 1

Tonprismen (Feuerböcke und Webgewichte)

1. Komplet, Struktur 1, Horizont 1, nicht abgebildet.
H = 13 cm, DM Basis = 8 cm, D Scheitelfläche = 3,5 cm. Das Prisma läuft pyramidenförmig nach oben zu, die Basis ist flach und quadratisch, die Scheitelfläche ist leicht abgerundet. Es ist im oberen Teil gelocht, die Lochung ist leicht schräg nach unten orientiert und weist leichte v-förmige Einkerbungen und Rillen im unteren Teil der Lochung auf. Sekundäre Brandspuren auf der Oberfläche.
2. Komplet, Struktur 1, Horizont 1, Taf. 1/1.
H = 11,7 cm, DM Basis = 12 cm, D Scheitelfläche = 5 cm. Das Prisma läuft pyramidenförmig nach oben zu, Basis und Scheitelfläche sind flach und quadratisch. Es ist im oberen Teil gelocht, die Lochung ist leicht schräg nach unten orientiert und weist leichte v-förmige Einkerbungen und Rillen im unteren Teil der Lochung auf. Sekundäre Brandspuren und muschelartige Risse auf der Oberfläche.
3. Komplet, Struktur 1, Horizont 1, Taf. 1/2.
H = 13,5 cm, DM Basis = 6 cm, D Scheitelfläche = 4 cm. Das Prisma läuft pyramidenförmig nach oben zu, Basis und Scheitelfläche sind quadratisch mit abgerundeten Ecken. Auf der Scheitelfläche befindet sich ein Fingerabdruck. Das Prisma ist im oberen Teil gelocht, die Lochung ist leicht schräg nach unten orientiert und weist leichte v-förmige Einkerbungen und Rillen im unteren Teil der Lochung auf. Sekundäre Brandspuren und muschelartige Risse auf die Oberfläche.
4. Fragment, Struktur 1, Horizont 1, Taf. 1/3.
H = nicht bestimmbar, DM Basis = 10 cm, D Scheitelfläche = etwa 4 cm. Das Prisma läuft pyramidenförmig nach oben zu, die Basis ist flach und quadratisch. Der obere Teil mit der Lochung ist nicht erhalten. Sekundäre Brandspuren und muschelartige Risse auf der Oberfläche.
5. Fragment, Struktur 1, Horizont 1, Abb. I. 6. 8, rechts, Taf. 1/4.
H = nicht bestimmbar, DM Basis = 9,5 cm, D Scheitelfläche = kleiner als 5 cm. Das Prisma läuft pyramidenförmig nach oben, die Basis ist flach und quadratisch. Der obere Teil mit der Lochung ist nicht erhalten, die Lochung ist jedoch noch zur Hälfte sichtbar und zeigte die gleiche schräg nach unten gerichtete Orientierung wie die Nr. 2 und 4 auf. Sekundäre Brandspuren und muschelartige Risse auf der Oberfläche.
6. Aus Struktur 1, stammen elf kleine Fragmente von einem weiteren Tonprisma. Nach den Formen der Fragmente zu urteilen, handelt es sich um eine ähnliche Form wie die Nr. 2, 4 und 5. Die Oberfläche weist ähnliche Eigenschaften wie die vorherigen auf. Nicht abgebildet.
7. Fragment, aus dem Pflughorizont.
Die Form ist wahrscheinlich kegelig, die Oberfläche zeigt keine sekundären Brandspuren.
8. Fragment, Horizont 1. Wahrscheinlich aus dem Nebenbereich von Struktur 1.
Nur das Oberteil ist erhalten, die Scheitelfläche ist leicht abgerundet und mit einem Fingerabdruck versehen. Wahrscheinlich ursprünglich pyramidenförmig. Die Lochung ist leicht schräg nach unten orientiert, keine Abnutzungsspuren sichtbar. Auf der Oberfläche befinden sich leichte Brandspuren. Nicht abgebildet.
9. Fragment, Horizont 1, nicht abgebildet.
Nur ein Fragment aus dem Oberteil mit der Lochung ist erhalten. Die Form ist nicht bestimmbar. Auf der Oberfläche sind wenige muschelförmige Risse sichtbar.
10. Komplet, im Bereich neben Struktur 1, Horizont 1, Taf. 1/5.
H = 14 cm, DM Basis = 9,5 cm, D Scheitelfläche = 3,5 cm. Das Prisma läuft pyramidenförmig nach oben zu, beide Endflächen sind flach und quadratisch, die Basis läuft leicht schräg zu (trotzdem steht das

⁴² Mann 1991, 5 ff.

Prisma stabil). Die Scheitelfläche ist mit zwei im Kreuz gesetzten, tiefen Rillen verziert. Die Lochung ist schräg nach unten orientiert und weist leichte v-förmige Einkerbungen und Rillen in ihren unteren Teil auf. Sekundäre Brandspuren und zahlreiche muschelartige Risse auf der Oberfläche.

11. Fragment, Struktur 1, Horizont 1, Taf. 1/6.

H = 13 cm, DM Basis = 9 cm, D Scheitelfläche = 4 cm. Das Prisma läuft pyramidenförmig nach oben zu, die Basis ist flach und quadratisch, die Scheitelfläche abgerundet. Im unteren Teil ist das Prisma seitlich gebrochen. Die Lochung ist schräg nach unten orientiert und weist leichte v-förmige Einkerbungen und Rillen in ihrem unteren Teil auf. Starke sekundäre Brandspuren und zahlreiche muschelartige Risse auf der Oberfläche.

12. Fragment, Horizont 5, nicht abgebildet.

Wahrscheinlich kegelförmig, nur ein kleiner Teil ist erhalten.

13. Fragment, Horizont 2, nicht abgebildet.

Pyramidenförmig, nur der obere Teil mit der Lochung ist erhalten. Die Lochung ist schräg nach unten orientiert und weist leichte Einkerbungen im unteren Teil auf. Auf der Oberfläche sind wenige muschelartige Risse sichtbar.

14. Fragment, Horizont 2, nicht abgebildet.

Fragment mit einem Teil der Lochung, die Form ist nicht bestimmbar. Auf der Oberfläche sind leichte sekundäre Brandspuren sichtbar.

15. Fragment, Horizont 6, nicht abgebildet.

Nur das Oberteil mit der Lochung ist erhalten, die Form war wahrscheinlich pyramidal.

16. Fragment, Horizont 2, nicht abgebildet.

Nur das Oberteil mit der Lochung ist erhalten, die Form war pyramidal. Die Scheitelfläche ist flach und quadratisch, die Lochung ist schräg nach unten orientiert. Auf der Oberfläche sind Brandspuren und muschelartige Risse sichtbar.

17. Komplet, Horizont 6, Taf. 1/7.

H = 8,5 cm, DM Basis = 4,5 cm, D Scheitelfläche = 2 cm. Die Form ist kegelig, die Basis ist flach und rund, die Scheitelfläche ist abgerundet. Die Lochung sitzt gerade, im oberen Teil sind leichte Kratzer und beieinander liegenden Rillen sichtbar.

18. Fragment, Horizont 2, nicht abgebildet.

Die Form ist nicht bestimmbar. Auf der Oberfläche sind sekundäre Brandspuren sichtbar.

19. Fragment, Horizont 5, nicht abgebildet.

Nur ein kleiner Teil ist erhalten, die Form war wahrscheinlich pyramidal.

20. Fragment, Ablagerung 5, Horizont 5, nicht abgebildet.

Nur ein kleiner Teil ist erhalten, die Form war wahrscheinlich pyramidal mit einer ebenen Basis.

21. Fragment, Horizont 4, nicht abgebildet.

Das Unterteil ist erhalten. Das Stück war kegelförmig, die Durchlochung ist senkrecht.

22. Fragment, Horizont 4, nicht abgebildet.

Der Unterteil ist erhalten. Das Stück war kegelförmig, die Durchlochung ist senkrecht.

23. Komplet, Horizont 6, Taf. 1/8.

H = 5,2 cm, DM Basis = 2,5 cm, D Scheitelfläche = 1,7 cm. Das Stück ist pyramidenförmig, beide Endflächen sind flach und quadratisch, die Basis ist nur ein wenig größer als die Scheitelfläche, so dass die Form nicht stabil steht. Die Scheitelfläche ist mit einem Fingerabdruck versehen. Die Lochung ist gerade, in ihrem oberen Teil sind deutliche Abnutzungsspuren sichtbar (Rillen und Kratzer).

24. Fragment, Horizont 4–5, nicht abgebildet.

Nur ein kleines Stück ist erhalten. Wahrscheinlich pyramidenförmig, die Lochung ist senkrecht.

25. Fragment, Horizont 5, nicht abgebildet.

Nur ein kleines Stück ist erhalten, vermutlich kegelförmig.

26. Komplet, Horizont 5, Taf. 1/10.

H = 8 cm, DM Basis = 7 cm, D Scheitelfläche = 2 cm. Pyramidenförmig, beide Endflächen sind flach und quadratisch. Die Lochung ist nach unten orientiert.

27. Komplet, aus den Altgrabungen, Kontext unbekannt, Taf. 1/12.

H = 23 cm, DM Basis = 12 cm, D Scheitelfläche = 5 cm. Kegelförmig, beide Endflächen sind flach und rund. Die Lochung ist leicht schräg. An einer Seite sind Brandspuren sichtbar.

28. Komplet, aus den Altgrabungen, Kontext unbekannt, Taf. 1/11.

Kegelförmig, die Basis ist flach und rund, die Scheitelfläche ist abgerundet. Die Lochung ist leicht schräg, auf der Oberfläche sind zahlreiche muschelartige Risse sichtbar.

ANHANG 2

Tonkugel (tönerne „Hitzesteine“)

1. Komplet, Gr. 59, Horizont 4–5, Taf. 2/3. DM = 9 cm. Eine Seite ist abgeplattet, auf der Oberfläche finden sich zahlreiche Risse.
2. Komplet, Gr. 59, Horizont 4–5, Taf. 2/3. DM = 8 cm. Eine Seite ist abgeplattet, auf der Oberfläche finden sich zahlreiche Risse.
3. Fragment, Gr. 59, Horizont 4–5, Taf. 2/3. DM = etwa 10 cm. Auf der Oberfläche finden sich zahlreiche Risse.
4. Fragment, Gr. 59, Horizont 4–5, Taf. 2/3. DM = etwa 10 cm. Auf der Oberfläche befinden sich zahlreiche Risse.
5. Aus Gr. 59 stammen 14 weitere Fragmente, die nicht zusammengesetzt werden konnten. Alle weisen eine ähnliche Tonqualität und zahlreiche Risse auf der Oberfläche auf.
6. Fragment, Hausbefund, Horizont 4, Taf. 2/1. DM = etwa 5 cm. Auf der Oberfläche finden sich Risse.
7. Aus dem Hausbefund stammen drei weitere Fragmente von solchen Kugeln aus Ton. (Taf. 2/2). DM = nicht bestimmbar.
8. 20 Fragmente, Abfallablagerung, Horizont 4, nicht abgebildet. Die Stücke sind sehr fragmentiert. DM = nicht bestimmbar.

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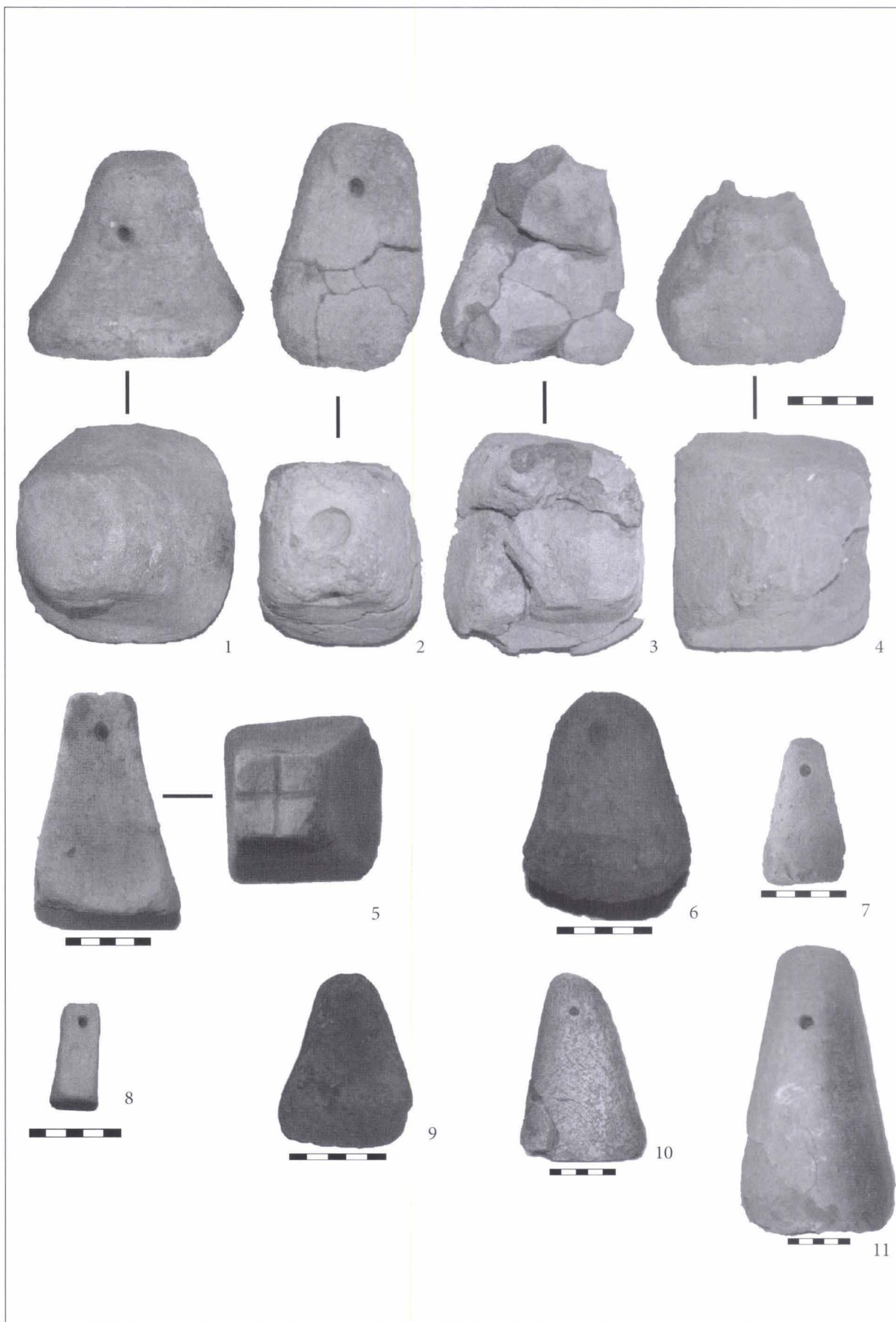
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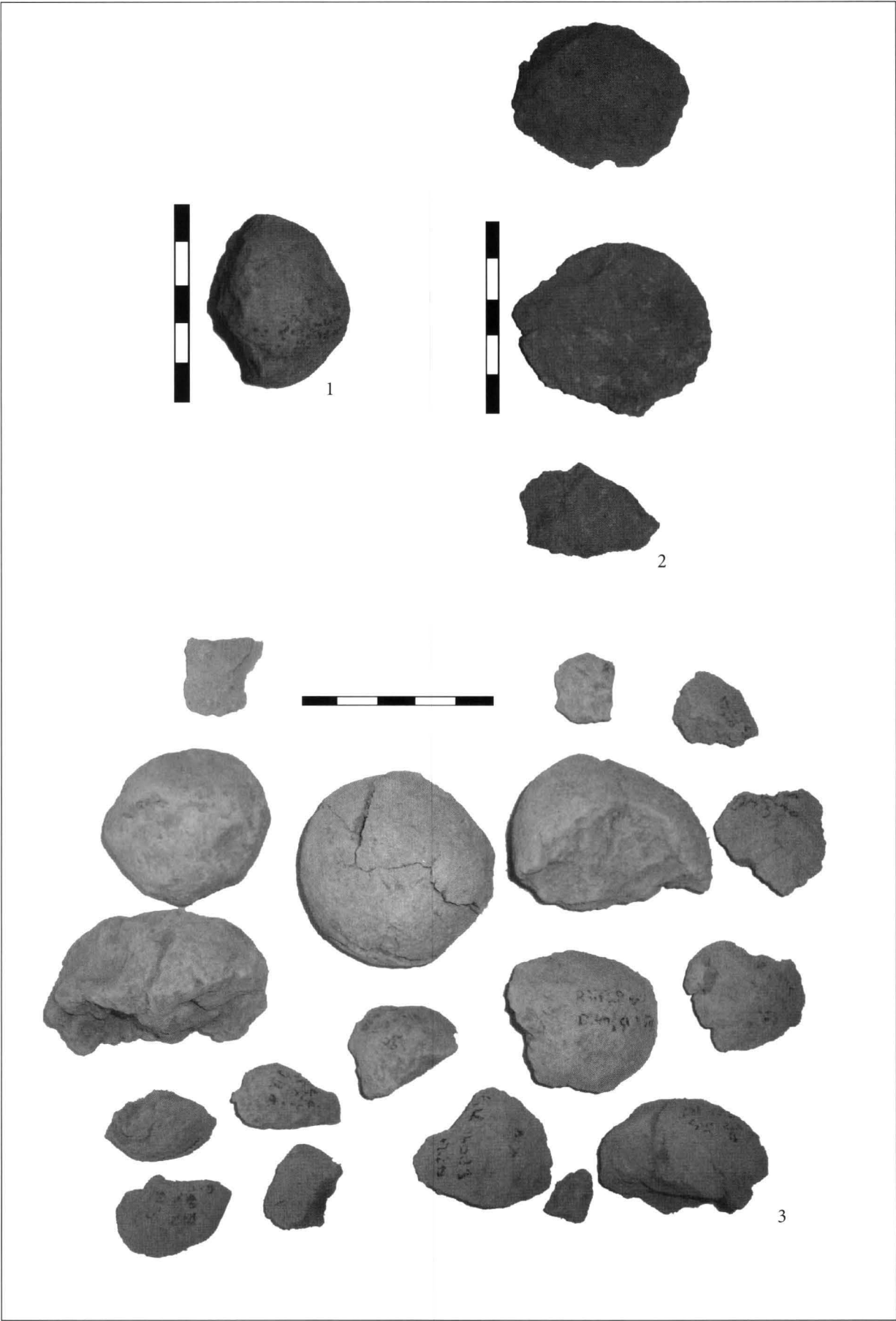
- Abb. 1. Rotbav. Struktur 1.
Abb. 2. Rotbav. Der Pyraunos.

TAFELN

- Taf. 1. Rotbav. Tonprismen.
Taf. 2. Rotbav. Ton- und Steinkugeln.



Tafel 1. Rotbav. Tonprismen.



Tafel 2. Rotbav. Ton- und Steinkugeln.
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EINE KNOCHENPFEIFE DER NOUA-KULTUR AUS ROTBAV-LA PÂRÂUȚ

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Schlüsselwörter: Rotbav, Pfeife, Bronzezeit

Unmittelbar am Rande des Dorfes Rotbav links der Straße Braşov-Sighişoara liegt auf einer leichten Anhöhe mit der Flurbezeichnung *La Pârâuț* eine seit Ausgrabungen A. Vulpes und M. Marcus zu Beginn der 1970er Jahre bekannte bronzezeitliche Siedlung. In der Fachwelt hat sie trotz eher spärlichen Hinweisen in der Literatur eine gewisse Bekanntheit erlangt in Zusammenhang mit dem bislang einzigen Beleg einer stratigrafischen Überlagerung der Wietenberg- durch die Noua-Kultur. Seit 2005 finden an dieser Stelle neue Ausgrabungen statt, zu denen einige Vorberichte und Aufsätze zu Teilaspekten erschienen sind.¹ Die neuen Untersuchungen belegen eine Besiedlung des Platzes schon in der Coţofeni-Kultur und eine durchgehende Stratigrafie von der frühen Wietenberg- über die Noua- bis hin zur Gáva-Kultur. Die vorliegenden Zeilen sollen einem in der Siedlung gefundenen Knochenobjekt gewidmet sein, das möglicherweise etwas Licht auf die bislang in Rumänien noch kaum erforschten Musikinstrumente der Bronzezeit werfen kann.

Das hier zu besprechende Objekt stammt aus den Ausgrabungen des Jahres 2009. Es wurde im Kontext eines Aktivitätsbereiches vor einem Haus der Noua-Kultur in gesichertem Schichtzusammenhang geborgen.²

Beschreibung: Ausgehöhlt Segment eines Langknochens, die Oberfläche sorgfältig glatt geschliffen. Eines der Enden ist exakt rund gearbeitet, abgeschliffen, der Rand schließt genau gleich hoch ab und ist gleich bleibend dick gearbeitet. Das andere Ende ist leicht schräg abgeschnitten, ebenfalls sorgfältig überarbeitet, jedoch im Randdurchmesser ungleichmäßig. Das Stück weist vier Lochungen auf, die nicht genau mittig, sondern näher zum schräg abschließenden Ende ausgerichtet sind. Es handelt sich um jeweils zwei kleinere, sehr sorgfältig ausgeführte runde Bohrungen von 0,45 cm Durchmesser und zwei größere, gerundet-trapezoidale, vermutlich eingeschnitzte Öffnungen, deren Form leicht voneinander abweicht. Ihre Länge beträgt 0,9 cm, die Breite an der Basis max. 0,7 cm, am gerundeten Oberteil max. 0,5 cm. Die größeren Lochungen liegen sich genau gegenüber, die kleineren sind leicht gegeneinander versetzt. Gesamtlänge des Objekts 3,3 cm, Dm. am glatt geschliffenen Ende 1,65 cm, am unregelmäßigen Ende 1,85 cm (Abb. 1).

¹ Dietrich-Dietrich 2007; 2008a; 2008b; 2009; Vulpe u. a. 2006; 2007.

² Dietrich im Druck.



Abb. 1: Knochenpfeife (?) aus Rotbav.

Die funktionale Ansprache des Fundes erscheint zunächst schwierig. Fasst man die oben stehende Beschreibung zusammen, so handelt es sich um ein an beiden Enden offenes, hohles Langknochensegment mit mehreren, symmetrisch angeordneten, sorgfältig ausgeführten Lochungen. Die Suche nach Analogien innerhalb der Noua-Kultur ergibt nur wenig Vergleichbares. Aus der Siedlung von Gârbovăt, Gem. Ghidigeni, Kr. Galați publizierte A. Florescu die



Abb. 2: Knochenpfeife (?) aus Gârbovăt
(nach Florescu 1991, Abb. 155/12).

Abbildung eines ähnlichen Langknochensegments, das zweifach gelocht zu sein scheint (Abb. 2).³ Die Form der Lochungen entspricht in etwa den gerundet-trapezoidalen Öffnungen des Rotbaver Stückes. In der Abbildungsunterschrift bezeichnet Florescu das Objekt als „fluier“, Pfeife oder Flöte, geht im Text jedoch nicht weiter auf diese mögliche Funktion ein.

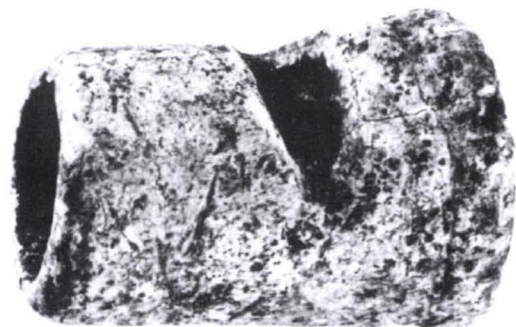


Abb. 3: Knochenpfeife aus Falköping
(nach Lund 1985, Abb. 2).

Interessant als Vergleich ist ein Fundstück aus Falköping, Västergötland, Schweden, das aus einer nach nordeuropäischer Terminologie spätneolithischen (etwa 2300–1800 v. Chr.) Steinkiste mit 30 Bestatteten stammt.⁴ Es handelt sich um einen hohlen, polierten Schafsknochen von 3 cm Länge und 1,5–2 cm Innendurchmesser, der in der Gesamtform unserem Fund auffallend gleicht (Abb. 3). Abweichend weist er jedoch nur ein Blasloch auf. Nach C. Lund kann mit einer Rekonstruktion des Fundes,

³ Florescu 1991, 73, Abb. 155/12.

⁴ Lund 1985, 10–12.

der ein Block aus Bienenwachs hinzugefügt wurde, ein Tonspektrum erzielt werden, das in etwa dem von Vogelgesang entspricht.

Diese wenigen Analogien könnten somit für eine Identifizierung unseres Fundes als Pfeife sprechen, allerdings ist die vierfache Lochung ungewöhnlich, wobei jedoch anzumerken ist, dass auch das Knochenobjekt aus Gârbovăț mindestens zwei Lochungen auf gleicher Höhe aufweist (vergl. Abb. 2). Die grundsätzliche Eignung zur Erzeugung einfacher Töne durch Anblasen von schräg oben und Zuhalten einiger Öffnungen lässt sich bei dem Fund aus Rotbav durch Ausprobieren belegen. Das Ergebnis ist jedoch wenig konstant und wiederholbar und natürlich kein endgültiger Beleg für eine ursprüngliche Funktion als Musikinstrument. Die Art der Lochung findet sich zudem auch bei einigen als Psalien angesprochenen, allerdings aus Geweih gefertigten Gegenständen wieder,⁵ so dass auch eine solche Funktion nicht ganz ausgeschlossen werden kann. Für eine Psalie wäre der Fund aus Rotbav aber doch etwas zu klein, eine wahrscheinlichere Möglichkeit wäre ein Riemenverteiler. Entsprechende Abnutzungsspuren scheinen an den Kanten der Löcher jedoch zu fehlen. Im Falle der Interpretation als Pfeife muss unklar bleiben, ob möglicherweise ein Block aus Holz oder Wachs zu ergänzen wäre, es sich somit ursprünglich um eine gedackte Pfeife handelte.

Trotz der Unsicherheiten in der funktionellen Ansprache ist der vorgestellte Fund interessant, zumal für die Bronzezeit in Rumänien archäomusikalische Untersuchungen bislang noch völlig fehlen. Die vorliegenden Zeilen wollen ausdrücklich dahingehend verstanden werden, die Funktion des vorgelegten Objekts zur Diskussion zu stellen, nicht jedoch eine eindeutige Interpretation zu liefern.

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⁵ Florescu 1991, Abb. 151/1; 152/3.

ABBILDUNGEN

Abb. 1. Knochenpfeife (?) aus Rotbav.

Abb. 2. Knochenpfeife (?) aus Gârbovăţ (nach Florescu 1991, Abb. 155/12).

Abb. 3. Knochenpfeife aus Falköping (nach Lund 1985, Abb. 2).

THE BRONZE HOARD FROM SÂMBRIAȘ (MUREȘ COUNTY)*

BOTOND REZI

Mureș County Museum, Târgu Mureș

Keywords: bronze hoard, socketed axes, socketed-hammer, knife, Late Bronze Age, Early Iron Age

The reinterpretation of the hoard from Sâmbriaș is a natural continuation of a process, having as main goal the evaluation of prehistoric bronze artefacts, which in spite of the fact that are long published are inadequate analyzed. From this reason they are hardly quoted or totally missing from the archaeological literature.¹ My first step was the publication of the small hoard from Aluniș,² followed by that from Cetatea de Baltă.³ The assessment and interpretation of all isolated bronze finds from the collection of Mureș County Museum is an aim which we hope to accomplish in the near future.

Besides the typological and chronological reading, the main goal of this paper is the clarification of the find-circumstances in a best way possible. I hope also that the publication of all the bronze pieces from Sâmbriaș, still found today, in one place will lead to the adaptation of the find in the scientific circle of bronze hoards from the end of the Bronze Age and beginning of the early Iron Age in Transylvania.

The bronze hoard was recovered in the year 1969, in the village Sâmbriaș, by the tractor-driver Mihály Bakó, during ploughing, near the cemetery of the village, in a place called *The Hill of Jakabos* or *Barren Slope* (Dealul lui Jakabos / Panta neroditoare; Jakabos-hegy / Kopár dűlő).⁴ The metal artefacts were found in a layer of black soil deepened into the yellow virgin soil, at a depth of 1 meter. No other archaeological materials were found above the find spot, or around it. The black soil spots at the level of the virgin one, suggests that the hoard was hidden in a pit dug in an opportune and random way. At discovery the bronze pieces were very corroded, and covered with cupper-oxide.⁵

* I would like to express my gratitude to Dr. Tudor Soroceanu for the useful indications regarding the literature and for the unconditioned help in the evaluation and interpretation of this find.

¹ I quote only some of the recent papers, which sum up the problems and questions regarding the bronze hoards from the HaB period, but the hoard from Sâmbriaș does not appear in either of the works: Ciugudean *et al.* 2008, 51, where it's missing right from the list containing the HaB hoards; Bratu 2009, 183–185, with the HaB1–2 hoards; Dergačev 2010, 168, list 4 with the catalogue of the Țelna type socketed axes.

² Rezi 2009a, 259–272.

³ Rezi 2009b, 45–63.

⁴ Székely 1977, 28.

⁵ Zrínyi 1979, 641.

After the discovery the hoard was divided, some pieces getting in two different museums, others vanished without any trace. Two socketed axes and one knife got into the possession of Géza Gampé, who was the doctor of the village, one socketed axe remained at the finder M. Bakó, who also donated to the Mureş County Museum four other socketed axes. Later the artefacts which were at G. Gampé were also donated to the Seckler National Museum.⁶ The teacher of the village, Gergely Lengyel, donated one more socketed hammer to this museum, which was found in the place called *Falbükk*, near the village Sâmbriaş.

The observations carried out at the find spot, partly confirm the statements of A. Zrínyi and Z. Székely. The place called *Barren Slope* is situated approximately 500 m south-east from the roman-catholic church, from the centre of the village. The slope has an accented incline towards north-west. The find place is surrounded by the modern cemetery to the north-west, by *The Hill of Jakabos* to the south-east, which totally dominates the slope, and by a small creek to the east (Darvas creek), flowing towards north-west. The site was used as a meadow, probably due to the fact that it is very clayey. This is why the entire place was used for the extraction of clay, being disturbed by tens of clay-pits. The recovery from 1969 resulted after such an extraction, carried out by M. Bakó, the raw material being necessary for the construction of its own house. The exact find spot lies at 10 m from the eastern corner of the modern cemetery, between the road and the fence of the cemetery. No habitation layer was identified.



Fig. 1. *Barren Slope* with *The Hill of Jakabos* in the background.

Trying to give an exact reconstruction of the find-circumstances as possible, I contacted the former manager (director) of the school from Sâmbriaş, György Szabó.⁷ Based on his statements I found out that he didn't have direct contact with the bronze artefacts, which shortly after the recovery, get from M. Bakó into the possession of the doctor G. Gampé. Beside the artefacts donated to the Seckler National Museum, the doctor sold the handle of a sword to a person from Bucharest.

⁶ The inventorying of the artefacts from Sâmbriaş at the Seckler National Museum, those from doctor Gampé as well as those from teacher Lengyel was carried out in the year 1973.

⁷ I would like to thank to Miss Melinda Bakó for helping me in the clarification of the find-circumstances, and for leading me to the witnesses of the find.

Based also on the declarations of three locals from Sâmbriaș, one of them being the neighbour of M. Bakó, the hoard contained also six metal cups and one metal vessel, all of them having yellow colour, which got to doctor G. Gampé, vanishing later without any trace.

Reaching also G. Gampé, the former doctor of the village, I found out that the bronze pieces got into his possession after a common medical visit at the Bakó family. Being a collector of archaeological, ethnographical and historical artefacts, the bronze objects were easily handed over to the doctor. The two socketed axes and the knife were later donated to the Seckler National Museum, after the friendly request of the manager. The doctor mentioned that no artefacts remained either at M. Bakó, or at him. I asked him also about the sword handle, and he said that it was a Mycenaean type (!), which was handed over to a collector from Bucharest by M. Bakó, for taking part in an exhibition. The artefact disappeared later on. The doctor denied that the seven metal vessels got into his possession, having no information regarding them not in the past, nor in present time.

Summarizing somehow the information presented above, I must mention that neither the type of the metal vessels, nor the buyer/collector from Bucharest can be identified or checked. We have to ask ourselves if the vessels existed in the first place. If they existed were they part of the bronze hoard or were they discovered somewhere else near the village Sâmbriaș? In either of the cases the statements of the three locals have to be questioned, emphasizing that we have to deal with 40 year old happenings, and nowadays, excepting doctor Gampé, no eye whiteness are alive. The new elements in contrast with the first two publications already mentioned, are the sword handle and the seven metal vessels. The statements of the doctor largely correspond with these two articles. But the information given by the teacher Gy. Szabó and the three locals from Sâmbriaș make us wonder if G. Gampé is really sincere in his statements. It is also interesting the level of knowledge of the doctor regarding the phenomenon of bronze metallurgy, the type of the sword being identified without any hesitation. Asking him why he donated the three artefacts to the museum from Sfântu Gheorghe, he said that "*in those times these kinds of artefacts had no value*".

Although the two main publications which refer to the hoard from Sâmbriaș are only separated by two years, they offer contradictory and somehow confuse information. Z. Székely mentions ceramic fragments from the find spot, 9 artefacts (7 socketed axes and 2 knives) and bronze nails.⁸ A. Zrínyi does not mention the ceramic material and describes 4 socketed axes, mentioning 6 other objects without the nails.⁹ Trying to complete the hoard list given by M. Petrescu-Dîmbovița, T. Soroceanu mentions also the hoard from Sâmbriaș, being made up by socketed axes, one socketed-hammer, one knife and nails.¹⁰ In the list of hoards from around Suseni the hoard from Sâmbriaș is only noticed, without any difference in its structure.¹¹ Ch. Pare only dates the already mentioned hoard in the DFS V period of his chronological system, without any added information.¹² In the Mureș County Archaeological Repertory the hoard is mentioned, but very briefly and with an incomplete structure, also with the basic literature missing. Also the socketed-hammer from *Falbükk* was left out.¹³ Later the same information with the same errors

⁸ Székely 1977, 28.

⁹ Zrínyi 1979, 641–642.

¹⁰ Soroceanu 1982, 376, nr. 47 (quoting only Z. Székely, but mentioning that the hoard was divided between the two museums).

¹¹ Soroceanu 1997, 398, Liste 1/16, Abb. 1.

¹² Pare 1999, 366, Rumänien/10 (quoting only the article of A. Zrínyi, without the paper of Z. Székely).

¹³ Lazăr 1995, 145, XLIII.4.A.

is repeated in the description as well as in the illustrative material.¹⁴ Cataloguing and analyzing the socketed-hammers from Romania Fl. Gogâltan sets correctly the object from *Falbükk* in the list of the isolated finds.¹⁵ Instead B. Wanzek believes that is part of the hoard, dating it in the HaB3 period.¹⁶

Description of the objects

1. Socketed axe (Pl. 2/1), with small dimensions, with a straight and relative pronounced thickened rim, with the two margins slightly curved until the cutting edge. The blade has a trapeze form, with a widened and curved cutting edge, rounded at the corners. Under the rim and on both sides of the axe there are three horizontal ribs, which slowly fade under the attachment loop and on the opposite margin, where a vertical strengthening rib extends from the rim almost to the corner of the cutting edge. Under the three horizontal ribs, on both sides of the axe, a Y formed decoration appears, which is flanked by two slightly curved ribs on both sides. This ribbing decoration ends at the upper side of the blade, where it is separated by a horizontal deepened ridge. The bronze piece is very carefully manufactured, almost without any mould marks, with slightly visible casting ridges under the attachment loop. There are very few wear and tear marks on the cutting edge, which is blunt (Pl. 4/1a–b). It has a light green patina, preserved evenly on the whole surface of the artefact. Dimensions: L: 7.1 cm; l: 2.7 cm; l_{edge}: 4.3 cm; w: 100 g. Seckler National Museum, inv. nr. 16553.

2. Socketed axe (Pl. 2/2), similar with the first piece, with broken attachment loop, with the two margins stretching almost parallel to the blade, which is slightly widened and curved. The rim lightly grows thinner at the margins, under which it is strengthened with a rib, which extends on the whole circumference of the artefact. Under this, on both sides of the axe, a deepened rectangular form was realized, which stretches to the attachment loop. In this area on one side of the axe a Y shaped ribbing decoration appears, flanked by two slightly curved ribs on both sides, one of them longer, the other one shorter. On the opposite side of the axe this decoration is badly visible, and indescribable due to the corrosion which affected the artefact. The rim of the axe is badly casted, one of its sides received lesser bronze, which lead to an asymmetric placement of the two sides. The corrosion was removed during the restoration, which on the other hand lead to tiny milimetrical cavities on the surface of the piece (Pl. 4/2a). There can also be separated tiny cavities which resulted from a poor casting, and from the presence of the air bubbles within the mould. The cutting edge is sharpened, but has slight wear and tear marks (Pl. 4/2c). The fragmentation of the attachment loop is most probable prehistoric. Dimensions: L: 7.7 cm; l: 2.9 cm; l_{edge}: 3.6 cm; w: 128 g. Mureş County Museum, without inv. nr.

3. Socketed axe (Pl. 2/3), with small dimensions, with a relative large and thickened attachment loop, with a straight rim, which is strengthened with a rib, under which other three horizontal ribs are present. The axe has a slim body, with the margins slightly curved, with a widened cutting edge, slightly bent and rounded at the corners. Starting from the corners of the cutting edge and ending right under the three horizontal ribs, on both sides of the artefact an arch decoration in relief was realized. The cutting edge is blunt, with slight wear and tear marks (Pl. 4/3b, d). On the blade light interventions with a hammer can also be identified. It is a carefully manufactured artefact, with the casting ridges being visible only on the rim of the axe. In the area of the attachment loop, and on the opposite side, this rim is fragmentary (Pl. 4/3a). As a result of the restoration process tiny milimetrical cavities are visible on both sides of the axe (Pl. 4/3c). It doesn't have any patina, unfortunately being totally "cleaned" by the restaurateurs. Dimensions: L: 7.6 cm; l: 2.6 cm; l_{edge}: 3.4 cm; w: 104 g. Mureş County Museum, without inv. nr.

¹⁴ Lazăr 1998, 70/80, pl. XLIV/5 (instead of 6).

¹⁵ Gogâltan 2002, 20, nr. 37; Gogâltan 2005, 356, nr. 37.

¹⁶ Wanzek 1992, 267, Liste 4a, Nr. 6.

4. Socketed axe (Pl. 2/4), similar from typological point of view with artefact nr. 3., with an intact attachment loop, with a straight and slightly fragmentary rim, with the two margins stretching almost parallel to the cutting edge, which is slightly bent and rounded at the corners. The rim is strengthened by a slim rib, but which is fragmentary and uneven preserved (Pl. 5/4a, c). Under this another solid horizontal rib appears which stretches on the whole circumference of the axe, followed by other three horizontal ribs. On both sides of the axe, starting from the corners of the cutting edge and ending right under the last horizontal rib, an arch decoration in relief was realized. It is very carefully manufactured, every casting mark being removed from the rim till the cutting edge, probably with a small hammer, excepting the part under the attachment loop. The same kind of intervention is visible on the opposite margin of the attachment loop, between the two arches, where the casting ridges were hammered for removal. The rim of the socket is poorly preserved; the slim strengthening rib is missing almost totally. On the rim modern interventions are also visible, and on one side with prehistoric 'incision' marks. The blunt cutting edge has wear and tear marks, with wear down patina, and blunt corners (Pl. 5/4b, d). The patina has a dark green colour, being preserved evenly on the whole surface of the artefact. Dimensions: L: 7.9 cm; l: 2.8 cm; l_{edge} : 3.6 cm; w: 133 g. Seckler National Museum, inv. nr. 16554.

5. Socketed axe (Pl. 3/5), with the rim of the socket having a concave form, and slightly expanding outwards. The intact attachment loop starts from the rim, the lower side of it gradually widens until it reaches the width of the inner margin. Parallel with the rim of the axe, three ribs are present on the whole circumference of the artefact, uniting on the outer margin, and continuing afterwards as a single rib until the edge of the concave rim. It has a slim body, with the inner margin slightly pulled inwards, with a trapeze formed blade, with a slightly curved cutting edge with rounded corners. It is a very carefully manufactured axe, almost perfect from metallurgical point of view, with all the casting ridges removed. It has few wear and tear marks, with light damage traces on the cutting edge (Pl. 5/5a–b). The patina of the axe was removed during conservation. Dimensions: L: 12.5 cm; l: 2.5 cm; l_{edge} : 4.8 cm; w: 185 g. Mureș County Museum, inv. nr. 2746.

6. Socketed hammer (Pl. 3/6), with straight and thickened rim, with the two margins stretching almost parallel to the hitting surface, which is slightly widened, having a circular and concave form. It has an oval cross-section. Right under the rim, on both sides, six vertically stretched, slim ribs are present, which gradually fade after the middle of the hammer, right in the area where the widening of the hitting surface begins. The casting ridges were not removed, the mould marks being visible on both margins and on the rim as well. Due to a faulty casting a wrong placement of the moulds is noticeable, which gives the artefact an asymmetric outline. It has intensive prehistoric wear and tear marks on the hitting surface (Pl. 5/6d), but on the two sides as well (Pl. 5/6b–c). This exaggerated usage is proved also by the forcing of the margins of the hitting surface, which deformed slightly, moving opposite to the direction of the hits (Pl. 5/6b–c). Right under the area of the hitting surface tiny 'folds' can be observed, resulted from the overcharge of the hammer. The marks of modern interventions are also present, most probably with a file, which resulted the removal of the patina from the rim and from the hitting surface (Pl. 5/6a, d). The patina has a dark brownish colour, remaining uniform on the entire surface. Dimensions: L: 10.2 cm; l: 3.5 cm; l_{edge} : 4.5 cm; w: 489 g. Mureș County Museum, inv. nr. 5174.

7. Socketed axe (Pl. 3/7), similar with the first two pieces, having a straight and slightly thickened rim, with the two margins stretching almost parallel to the cutting edge. This is slightly curved, widened and sharpened at the corners. Under the rim, in the area of the attachment loop the axe is decorated with two horizontal ribs. Under these four vertical and much curved ribs appear, from which the upper two unite under one single rib in the lower part of the socket, the other two stretching parallel with the inner ones. The ribbing decoration ends in the upper part of the blade. Nowadays the socketed axe cannot be identified, according to Z. Székely it remained in the property of M. Bakó. Dimensions: L: 10 cm, l: 3 cm.

8. Fragmentary knife (Pl. 3/8), with a straight blade, a very slightly curved back and sharpened tip. On his entire length the back of the blade is strengthened with a rib. It is a carefully manufactured artefact, the casting ridges being totally removed. It is fragmentary in the area of the second rivet hole, even from prehistory. The cutting edge of the knife was sharpened multiple times, always only on one side. The tip of the piece is also sharpened. Wear and tear marks are noticeable on the surface of the blade. It has a dark green patina – similar to the socketed axe nr. 4 –, preserved evenly on its entire surface. Dimensions: L: 12.7 cm; l: 1.9 cm; w: 39.5 g. Seckler National Museum, inv. nr. 16556.

Apart from the earlier presented facts and taking into consideration only those bronze artefacts which got to the already mentioned two museums, the hoard from Sâmbriaș has an one sided structure. Excepting the knife fragment, all of the objects are either socketed axes or socketed-hammers.

In spite of the fact that the socketed axes are one of the leading types in the hoards from Romania, and they were recovered in a very large number, there is no comprehensive work which can be correlated with the already mentioned artefact type, and which analyses its archaeological characteristics. This fact is more obvious in the case of the developed types, with vertical and curved ribbing ornamentation. Excepting the socketed axe with concave rim and the socketed hammer the other bronze types are typologically related, and can be distinguished based on their rib decoration.

The two socketed axes decorated on their sides with Y shaped ribs (Pl. 2/1–2) know multiple types and a large variety. There is almost impossible to find two identical objects. They can be dated to a chronologically limited period. The analyses of the later versions, which are evolved from typological point of view, escaped the attention of the most researchers and are briefly touched. The papers which have discussed the classifications of the socketed axes from the end of the Bronze Age and the beginning of the Iron Age, focused mostly on those from the HaB1 period.

It was proposed that the strengthening of the socketed axes with different ribs, with horizontal concentric ribs placed under the rim, are characteristic for the HaB1 period, having also antecedent.¹⁷ M. Novotná distinguishes two forms in the category of the socketed axes with attachment loop and rich decoration: those with the blade not separated from the body and those where the blade and the body are separated by a curved or straight horizontal deepened ridge. Only the second type has chronological value, being placed in the hoard series of Rohod and Celldömölk, and dated by the Slovakian researcher to the HaB1 period.¹⁸ The same typological argumentation appears in the analysis of the hoard from Prügy, where the simple socketed axes with ribbing decoration are separated from those with horizontal ridge, which separates the blade from the socket area. Very similar typological characteristics appear in the later periods also, being only smaller in proportions and having a lightly curved cutting edge.¹⁹ The slim and decorated socketed axes in M. Rusu's typology appear in the HaA1 period, and continue their

¹⁷ Novotná 1970a, 44–45. In her opinion the appearance of this rich ribbing ornamentation on the sides of the socketed axe, mostly in the area right under the rim, is the result of the manufacturing method of the blade, which does not allow the presence of any decoration in that area. Also the chronological value of these ornamentations is reduced.

¹⁸ Novotná 1970b, 94–95. It has to be mentioned that initially the five hoards recovered from Celldömölk–Sághegy were dated to the HaB1 period, after which A. Mozsolics marked their dating. Nowadays a HaB2 chronological positioning is correct (see Mozsolics 1984a, 65–66; Mozsolics 1984b, 304; Kemenczei 1996b, 252; Kemenczei 1996c, 95–97).

¹⁹ Kemenczei 1981, 34. See also Kemenczei 1996a, 78. Both of the types can be found also in the hoard series from the IIIrd period of his chronology (HaA2), but those with horizontal ridge in an extremely low number. This is why the chronological differentiation of the two hoard series is based on the high number of the second type in the hoards of the IVth period.

evolution throughout the whole HaB period, when they gradually will reduce their proportions.²⁰ T. Bader also believes that this type of socketed axe was used during many centuries, beginning with HaA1 and finishing with HaB, when they become generalized.²¹ The socketed axe with concave rim is considered the leading type of the HaB1 period, beside which the socketed axes with straight rim and rib ornamentation in T, V, Y shape and semicircles on the two sides are frequent appearances.²² The decoration with vertical and curved ribs, in the majority of the cases with parallel ribs, is typical for the middle phases of the Urnfield period, and is most frequent on the sides of the socketed axes, beside the three horizontal ribs. In the typology of B. Wanzek this kind of ornamentation is placed in the 2.b.6.d. type of the socketed axes with angle and curved ribbing.²³ V. Dergačev also proposed that the classic forms of this type should be dated to HaA2–HaB1, whereas the imitations and later versions appear later on, in HaB2–HaB3.²⁴ The same idea is sustained by the moulds from Plenița, which are dated to HaA2–HaB1.²⁵ Similar artefacts, with Y shaped ribs, are dated to the end of the 9th century in the area of Croatia, being placed in the 4th type, in the typology of Z. Žeravica, characterizing the whole HaB period.²⁶ The thickening of the rim of the socket and the presence of more than two horizontal ribs, which are separated from each other, are considered basic properties for the HaB period.²⁷

Ch. Pare claimed that his DFS V period (HaB2) is characterized by the ornamentation with vertical ribs, curved outwards in the upper parts. He also believes that the socketed axes with slightly asymmetric blades compared to the rest of the body, like in the case of the axe nr. 1, are a natural presence in this period, and some artefacts, like the axe nr. 2 can lack the horizontal ribbing decoration.²⁸ The same idea is sustained by T. Kemenczei, who describes that these socketed axes with asymmetric blades represent a typological continuation of the earlier forms from the Hajdúböszörmény (Moigrad–Tăuteu) period.²⁹ Similar socketed axes, with rib decoration and with the corner of the cutting edge pulled inwards are typical also for the HaB1 and HaB2 periods in the South-Western Ukraine.³⁰ In the new chronological and typological system proposed by C. Metzner-Nebelsick – many of the so called leading types named by M. Rusu and M. Petrescu-Dîmbovița – are synchronized with HaB1 articles. Among these we can list the ornamentations with angle ribbing pointed downwards, vertical curved ribs, but also the Transylvanian type socketed axes and the axes with flattened tanged or trapezoid formed blade, those with vertical ribbings and the winged ones. At the same time the ornamentation is made up by softer curves. The parallel curved ribs and the horizontal ribs under the rim, and also the embossing of the cutting edge area in the form of an arch are typical for the period V of

²⁰ Rusu 1972, 126.

²¹ Bader 1978, 86.

²² Mozsolics 1985, 36–37; Mozsolics 2000, 24. The angle ribbing appears already in the HaA period, being highly present also in HaB (see Ciugudean 1999, 97–98; Ciugudean 2008, 345–349).

²³ Wanzek 1989, 112.

²⁴ Dergačev 1997, 151–152. The classic types appear in a large number in North-Western Hungary, in the Danube region of Slovakia, in the Upper Tisza region, and in the lower course of the Siret and Nistru Rivers. The last two regions and the more evolved types strictly coincide with the area of the Gáva–Holihady Culture (see also map 22, 1–2; Dergačev 2002, 174–175; Dergačev 2010, 92–98).

²⁵ Boroffka–Ridiche 2005, 154–155, Abb. 3–4.

²⁶ Žeravica 1993, 98–99.

²⁷ Soroceanu–Lakó 1995, 188, n. 6.

²⁸ Pare 1999, 366.

²⁹ Kemenczei 1996b, 255.

³⁰ Kobal 2000, 42.

her chronology.³¹ In this period we can also experience the diminution of the length and weight of the axes, and a conic manufacturing of the socket.³²

Analogies for the axes nr. 1 and nr. 2 can be mentioned from the hoards from Sălard,³³ Suatu³⁴ and Boldești,³⁵ dated to HaB1, and from the hoards from Cămin,³⁶ Hida, Sângeorgiu de Pădure I³⁷ and Târgu Mureș,³⁸ dated to the HaB2 hoard series. In Hungary similar typological characteristics appear also in the hoard from Celldömölk–*Sághegy II*, dated to HaB2.³⁹ Adjacent forms were recovered also from Ukraine, at Dedovo, Olešnik and Tekovo,⁴⁰ but with the corner of the cutting edge pulled inwards. Almost the same typological characteristics we can find in the hoard from Prüg,⁴¹ but which is dated to the Bükkszentlászló (HaB3) hoard series, lining up slightly evolved forms.⁴²

The axe nr. 7 (Pl. 3/7) based on its decoration and general form can be placed also in the HaB2 period, being the same type as the above mentioned two socketed axes. The analysis of this artefact will not be made, because we don't have the certainty of the provenience of the drawing made by Z. Székely. Furthermore from our knowledge no bronze artefact remained at M. Bakó.

The socketed axes with reduced dimensions (Pl. 2/3–4) with the blade extended in a form of an arch almost to the area of the rim can be placed in a typologically evolved form of the Transylvanian type socketed axe. They are called also 'the new form of the Transylvanian type socketed axe',⁴³ or the 'Eastern type' of the already mentioned axe.⁴⁴ These artefacts are a typical product of the eastern side of the Carpathians and the North Pontic region in the Bz.D period, after which they spread towards west, being used in HaA1 features and hoards.⁴⁵ A detailed typology was elaborated by M. Rusu, who places this kind of socketed axe in his main C type. The more evolved forms, type C9 in present case, have a long typological cycle which corresponds mainly with the early Hallstatt period (HaA1–B2).⁴⁶ They are named 'Pontic type socketed axes' by T. Kemenczei, being recovered in a large number in Transylvania and in the northern regions of the Black Sea. He separates two different types: those with horizontal ribs and thin rim, and those with thickened rim. They are typical for the HaB2 period.⁴⁷ In Hungary they appear at the horizon of the Kurd hoard series, appearing in a large number also in the hoards

³¹ Metzner-Nebelsick 2005, 324–326, fig. 3.

³² König 2004, 130.

³³ Ordentlich 1964, fig. 1/2; Petrescu-Dimbovița 1977, pl. 316/2.

³⁴ Rusu *et al.* 1977, R67a, 6; Petrescu-Dimbovița 1977, pl. 322/10.

³⁵ Petrescu-Dimbovița 1977, pl. 340, 3–5.

³⁶ Bader 1978, pl. LXXXII/8.

³⁷ Petrescu-Dimbovița 1977, pl. 348/13 (Hida); 351/13–14, 17 (Sângeorgiu de Pădure I).

³⁸ Kemenczei 1996b, fig. 6/3; Petrescu-Dimbovița 1977, pl. 355/3.

³⁹ Mozsolics 2000, Taf. 8/5–6.

⁴⁰ Kobal 2000, Taf. 79D (Dedovo); 88/17–20 (Olešnik); 79C (Tekovo).

⁴¹ Kemenczei 1981, Abb. 6/7–8.

⁴² Mozsolics 2000, Taf. 76/6–7, 9, 12, 16; 77/5.

⁴³ Roska 1937, 143–144. He believes that the Transylvanian type socketed axe is originating from Transylvania, more precisely from the south-eastern corner. The ornamentation in the form of an arch reminds him of the winged bronze axes.

⁴⁴ Nestor 1933, 131; Petrescu-Dimbovița 1953, 467–468.

⁴⁵ Kobal 2000, 41.

⁴⁶ Rusu 1966, 26–27, fig. 4. Beside different new decoration techniques, which are specific to the already mentioned period, no important changes will be carried out which could change the basic typological characteristic of the type.

⁴⁷ Kemenczei 1981, 34.

of the Gyermely type.⁴⁸ It is argued by some researchers that this type of socketed axe is a totally separate type, because based on its proportions, on the form of the socket and on its decoration it shows fundamental difference in contrast with the classic Râșești, Negrești and Ruginoasa forms, which appear as late as HaA2.⁴⁹ At the same time the more evolved forms (C5–10 in M. Rusu's typology) are considered in fact natural evolutions in the local areas of Transylvania and the lower Danube River, which continue in fact eastern prototypes.⁵⁰ The most detailed typological system was carried out by V. Dergačev, who believes that the socketed axes with one attachment loop and with the sides decorated with arches in relief represent a unique and a homogeneous group-category. The two artefacts from Sâmbriaș can be placed in the Țelna type of his typology, which appears as a local form, its development being based on Eastern Carpathian traditions. The chronological bracket for the appearance and the existence of these axes is HaB1–HaB3.⁵¹ Although she accepts M. Rusu's typology, A. Hänsel sustains that these kind of socketed axes cannot be precisely dated, because they are present in bronze hoards beginning with HaA1 and ending with HaB2.⁵² In C. Metzner-Nebelsick's system they are typical for the period V.⁵³

Similar to the above mentioned axes, I could find analogies in the hoards of the HaB1 period as well as in those from HaB2. From the first period the hoards from Bancu and Țelna⁵⁴ can be mentioned, and from the second one the finds from Borșa, Fizeșul Gherlii II, Hida, Hunedoara, Sângeorgiu de Pădure and Turia III.⁵⁵ Similar forms can be found also in the Hungarian hoards from Karcag⁵⁶ and Szentes⁵⁷ dated to HaB1 and from Tarhos⁵⁸ dated to HaB2. From Ukraine we can mention the socketed axe from the hoard of Olešnik.⁵⁹ Similar to the pieces nr. 1–2, also in the case of the Eastern form of the Transylvanian type socketed axes close analogies can be identified in the hoard from Prüg, dated to HaB3.⁶⁰

The socketed axes with concave rim (Pl. 3/5) have also a long presence in the hoards, from Bz.D until HaB, being named repeatedly the most numerous and diverse type. The socketed axes with symmetrical concave rim and those with asymmetrical concave rim were distinguished,⁶¹ but the typological systems elaborated for this type of artefact are based mainly on the cross-section of the pieces, which can be either rectangular or oval.⁶² The size of the axe is also an important reference in its typological classification. Strengthening the rim of the socket with sometimes massive ribs is more frequent in the case of this type of socketed axe.⁶³ M. Novotná

⁴⁸ Mozsolics 1985, 35.

⁴⁹ Dergačev 1997, 144.

⁵⁰ Dergačev 2002, 138.

⁵¹ Dergačev 2010, 111–114 (regarding the chronological synchronisation of the different types and the evolution of the forms see also fig. 92 and fig. 95).

⁵² Hänsel 2005, 294.

⁵³ Metzner-Nebelsick 2005, fig. 3.

⁵⁴ Petrescu-Dimbovița 1977, pl. 298/7 (Bancu); 332/5 (Țelna).

⁵⁵ Petrescu-Dimbovița 1977, pl. 343/9 (Borșa); 345/13 (Fizeșul Gherlii II); 348/17 (Hida); 350/7 (Hunedoara); 351/4 (Sângeorgiu de Pădure I); 356/16 (Turia III).

⁵⁶ Mozsolics 2000, Taf. 44/19.

⁵⁷ Kemenczei 1996a, Abb. 28/2, 4–5, 7; 29/1, 3.

⁵⁸ Mozsolics 2000, Taf. 102/1, 3.

⁵⁹ Kobal 2000, Taf. 88/15–16.

⁶⁰ Mozsolics 2000, Taf. 76/3–4.

⁶¹ Hansen 1994, 180.

⁶² Regarding the typology of the socketed axes with concave rim from the hoards of Uriu–Opályi type see Kacsó 2007 with earlier literature. It is widely accepted the idea that their typological highest point is reached in Bz.D–HaA1, after which their use becomes common, losing their chronological significance.

⁶³ Bejinariu 2008, 80.

claimed that the decorated articles are chronologically later, but these kinds of artefacts are present also in earlier evolution phases.⁶⁴ They appear in a large number in the HaB1 period, when they reach the end of their typological evolution, after which the socketed axes with concave rim appear quite isolated.⁶⁵ In the following HaB2–B3 phases, besides the diminishing of the proportions they will not suffer basic typological transformations.⁶⁶ The typological highest level of the classic forms are reached in the Bz.D–HaA1 periods, when they are present in an extremely large number in the hoards of Uriu–Opályi type, in the area of the Suciul de Sus Culture, and in the near proximity of the Upper Someş River.⁶⁷ At the end of the HaA period the more evolved forms widely penetrate the central parts of Transylvania, and during the HaB1–B3 phases their number rapidly diminish, although remaining a dominant type in the central areas of the Carpathians.⁶⁸ They appear in large number in Eastern Slovakia, Northern Hungary and Transylvania. The most recent pieces are linked with the early types of the bowl-pommel swords.⁶⁹

Analogies for the socketed axe nr. 5 can be identified at Corneşti, Fizeşul Gherlii I, Şpălnaca⁷⁰ and Surduc,⁷¹ all of them dated to the horizon of the HaB1 bronze hoards. The best similarities from Hungary appear exclusively in the Hajdúböszörmény hoard series, synchronized with HaB1. Such artefacts were recovered from Hajdúsámson IV, Nádudvar–*Bojárhollos*, Pácin III, Taktakenéz,⁷² Mezőkövesd and Tiszaszentendre.⁷³ Very close analogies are found also in the hoard from Olešnik, at one of the axes even that deepened rectangular decoration is present.⁷⁴

The solid object (Pl. 3/6) with circular hitting surface can be placed in the category of socketed hammers. They appear in a quite small number in the bronze hoards. It is accepted the idea that the time bracket of their typological evolution can be placed between Bz.D and HaB.⁷⁵ The most detailed analysis was carried out by Fl. Gogâltan, who collected 65 socketed hammers and anvils from 37 find spots. The typological differentiation was based on the general form of the artefacts, on the cross-section of the rim, the socket and the hitting surface. The earliest pieces appear in Bz.D, the majority can be dated to the HaA period, and the latest do not extend beyond HaB1, when the manufacturing of the metal vessels takes a very important leap and prosperity.⁷⁶ In Hungary the earliest socketed hammers are those from Ság, dated to the Románd hoard series.⁷⁷ B. Wanzek dates them between Bz.D and HaB3, with a high concen-

⁶⁴ Novotná 1970b, 78.

⁶⁵ Rusu 1963, 192.

⁶⁶ Rusu 1972, 116–117. Their number is more and more diminished in the HaB1–B3 periods.

⁶⁷ Kobal 2000, 40. The first pieces appear at the horizon of the Kriva (Bz.C2) hoard series, after Bz.D their number is gradually increasing, the most evolved forms being represented by those with three ribs under the rim, in HaB2 (Type 1, Variant C of his typological system).

⁶⁸ Dergačev 1997, 149.

⁶⁹ Mozsolics 1973, 38–39; Bader 1991, 150–156; Kemenczei 1991, 54–56; Kacsó 1994, 12; Kacsó 1999, 51; Kacsó 2000, 213.

⁷⁰ Petrescu-Dimbovița 1977, pl. 305/3 (Corneşti); 307/1 (Fizeşul Gherlii I); 325/4 (Şpălnaca).

⁷¹ Bader 1999, 134, Abb. 3. With a less widened blade, with a more curved cutting edge and rounded corners and with four ribs under the rim.

⁷² Mozsolics 2000, Taf. 38/5 (Hajdúsámson IV); 55/5 (Nádudvar–*Bojárhollos*); 71/12 (Pácin III); 100/3 (Taktakenéz).

⁷³ Kemenczei 1984, Taf. 122/4 (Mezőkövesd); 210/9–11, 13 (Tiszaszentendre). The first one dated to the horizon of the Kyjatice Culture, the rest to the Gáva Culture.

⁷⁴ Kobal 2000, Taf. 87/C4–5; 88/8.

⁷⁵ Rusu 1972, 133; Bader 1978, 87; Mozsolics 1985, 39–40; Kobal 2000, 50.

⁷⁶ Gogâltan 2002, 45–46; Gogâltan 2005, 375–379. See also the earlier literature regarding this type.

⁷⁷ Mozsolics 1985, 40.

tration in HaA1, but without any typological characteristics for one period or another.⁷⁸ From typological point of view the piece from Sâmbriaș with its oval cross-section, with the rim and circular hitting surface, with the body slightly trapezoid can be placed in the Type 4, variant b of Fl. Gogâltan's system.⁷⁹ Similar forms can be found at Igrița, Aiud, Gușterița II and Plăiești.⁸⁰ The first is dated to Bz.D, the following two to HaA1, and the artefact from Plăiești to HaB1.

The knife fragment (Pl. 3/7) from the hoard from Sâmbriaș misses a very important part for an adequate typological classification. It has a straight cutting edge, with the back of the blade slightly curved and strengthened from one end to the other. The lack of the handle limits in a significant way our search for analogies. We can assume a continuation of the tang, with a strengthening rib only on the upper side. Having the same width in the area of the rivet hole as on the blade, a sudden or gradual narrowing of the tang is not plausible. The bronze knives appear rarely in the hoards from HaA and HaB. The tanged-grip knives are seen as typical products for the Bz.D–HaA metallurgy, but the decorated ones with the back of the blade curved characterize mostly the second period.⁸¹ The pieces from the Románd hoard have their best analogies in the first half of HaB1.⁸² M. Rusu separates three main types: solid-hilted knives, spike-grip knives and tanged-grip knives, the most recent being typical for the HaB1 period.⁸³ T. Bader also separates three main types, in which the tanged-grip knives, with two wooden plates, without any ornamentation, are dated with the hoard from Săcuieni, between HaA2 and HaB1.⁸⁴ In comparison with the number of the hoards from the 9th century BC, the knives are one of the most common artefacts, being recovered in a considerable number, beside the socketed axes, tanged sickles, spearheads and the cauldron fragments.⁸⁵ The largest typological variety of the knives can be observed in HaA1, when the tanged-grip knives (*Griffzungenmesser*), plate-grip knives (*Griffplattenmesser*), spike-grip knives (*Griffdornmesser*) and the hook-grip knives (*Griffangelmesser*) appear in the structure of different hoards. Between HaA2 and HaB2 the typological features are reduced to the tanged-grip and the solid-hilted knives. The closest typological characteristics in the region of Moravia can be found in the plate-grip type knives, Práštavlký variant, dated at the horizon of the Velatice I (HaA2) hoards, mentioning also that no exact analogies could be identified.⁸⁶

Regarding the form of the blade similar artefacts are present in the hoards from Băleni⁸⁷ dated in Bz.D, Cincu,⁸⁸ Biharia, Gușterița II, Moldova Veche I, Șpălnaca II from HaA1, Săcuieni and Șpălnaca I from HaB1.⁸⁹ A very similar knife was found in Moldavia, at Boldești, having a very slightly curved back, a very short handle with a rivet hole. Next to other similar pieces from Moldavia it is dated between HaA2–HaB1.⁹⁰

⁷⁸ Wanzek 1992, 261–262.

⁷⁹ Gogâltan 2002, 33–38, pl. XIV and XV; Gogâltan 2005, 366–370, Taf. XIV and XV.

⁸⁰ Gogâltan 2002, pl. V/28; Gogâltan 2005, Taf. V/28 (Igrița); I/4 (Aiud); V/27 (Gușterița II); VI/33 (Plăiești).

⁸¹ Jóna 1965, 32.

⁸² Németh–Torma 1965, 82–83. The knives with curved blade and the handle in the form of a spike are seen as typical forms for the HaB2 period. The authors draw the attention also on the large variety of the handle, which can be explained by the usage of organic materials, which give almost unlimited possibilities for setting in a metallic haft.

⁸³ Rusu 1972, 174–175.

⁸⁴ Bader 1978, 88–89.

⁸⁵ Rusu 1963, 192–194; Metzner-Nebelsick 2005, 324.

⁸⁶ Říhový 1972, 16–18.

⁸⁷ Petrescu-Dîmbovița 1977, pl. 73/6.

⁸⁸ Soroceanu 1996, Abb. 5/35; Petrescu-Dîmbovița 1977, pl. 130/3.

⁸⁹ Petrescu-Dîmbovița 1977, pl. 118/4 (Biharia); 154/14 (Gușterița II); 164/9, 12 (Moldova Veche I); 200/7, 13 (Șpălnaca II); 315/15 (Săcuieni); 328/6 (Șpălnaca I).

⁹⁰ Levițki 1994, 127–128, fig. 54/11.

* * *

The classification and the dating of the bronze hoards from the HaB period are based mostly on the chronological framework proposed by M. Rusu,⁹¹ assumed later on with minor modifications by M. Petrescu-Dîmbovița.⁹² This periodization continued in fact the one created by W. A. v. Brunn.⁹³ T. Bader elaborated a more elastic approach for the hoards from the Someș River Plain, placing the HaB1–B2 bronze hoards in one single phase (IV in his chronological system), naming the HaB3 period the end of the early Hallstatt Culture.⁹⁴ T. Kemenczei believes that the hoard from Prügy is one of the earliest manifestations of the pre-Scythian period, dated largely in the 8th and 7th century BC. This phase is preceded, in the chronological scheme of W. A. v. Brunn, by the horizon of the Rohod–Szentés hoard series, characterized by the Hajdúböszörmény type situlæ.⁹⁵ He returns with slight changes a few years later, placing the hoards from Celldömölk–*Sághegy*, Románd and Szentés–*Donátvár* in the IVb horizon of his typology, being contemporaneous with the HaB2 period,⁹⁶ the hoard from Prügy being placed right in the next phase.⁹⁷ The hoards from the Carpathian Basin are separated in two major groups, each with two other subdivisions: the first one contains the products of the local metallurgical centres (Hajdúböszörmény, Románd, Bükkzentlászló), the second one eastern elements taken over and distributed in the area of the Mezőcsát and Basarabi Cultures (Biharugra–Füged).⁹⁸ Ch. Pare continues in fact the threefold division of the HaB period (DFS IV–V), to which he adds a transition phase between the first two (DFS IV/V), placing many hoards dated initially in HaB2 in his VI period of his chronological system.⁹⁹ C. Metzner-Nebelsick proposes a new division for the hoarding series from Romania, claiming that there are no fundamental evidences for dividing the HaB period in three phases. That is why she will synchronize some hoards from the Sângeorgiu de Pădure–Fizeșu Gherlii series with HaB1 finds, and eliminating the Șomartin–Vetiș hoard, redistributing its hoards between the remaining two main HaB periods.¹⁰⁰ Analyzing the hoards from HaB period from the collection of the Brukenthal Museum, the authors believe that the division and dating of the bronze hoards from the already mentioned period cannot be achieved without the synchronization of the hoard series with the existent cultural background in Transylvania.¹⁰¹

⁹¹ Rusu 1963, 180–204.

⁹² Petrescu-Dîmbovița 1977, 28–32; Petrescu-Dîmbovița 1978, 88–97, Abb.3.

⁹³ Brunn 1968, 28–55.

⁹⁴ Bader 1978, 108.

⁹⁵ Kemenczei 1981, 37–38; Kemenczei 1984, 85.

⁹⁶ Kemenczei 1996a, 83–84.

⁹⁷ Kemenczei 1996a, 85–86. It is named also one of the leading types of the horizon Bükkzentlászló by A. Mozsolics (Mozsolics 2000, 27–29).

⁹⁸ Kemenczei 1996b, 269–271. He mentions also that strict chronological boundaries cannot be outlined between individual groups, and the transition between the four periods occurred without a break.

⁹⁹ Pare 1999, 359–371. In comparison with the rest of the Carpathian Basin the number of the HaB2 hoards is high. Through the presence of some cups and cauldrons within hoards, these finds clearly differ from the previous period. In the rest of the Carpathian Basin they are considered as a joining deck between the richer hoards from the IVth and VIth period.

¹⁰⁰ Metzner-Nebelsick 2005, 321–328.

¹⁰¹ Ciugudean *et al.* 2008, 43–46, fig. 13, pl. XXXIII with the short research history regarding the cultural background from this period. The local Transylvania evolution of the Gáva culture is synchronized with the Moigrad–Tăuteu and Fizeșu Gherlii–Sângeorgiu de Pădure hoard series, or with the horizons IV–V proposed by C. Metzner-Nebelsick, or DFS IV–V by Ch. Pare.

In the HaB2 period the structure of the hoards and the typology of the bronze artefacts go through a slight modification. If we could identify local production centres in the previous phase, the HaB period would be characterized through unification, with the appearance and spread of some types of socketed axes with similar ornamentation on large territories.¹⁰² It is the time of the hoards from Románd from Western Hungary, Sitno from Slovakia, Podgorjany from South-Western parts of Ukraine and Fizeșu Gherlii and Sângeorgiu de Pădure from Transylvania. The inventory of these hoards, bring to light the traditions of the previous period, with types of artefacts that prove a local evolution: flange-hilted and bowl-pommel swords, tanged sickles, knives, socketed and winged axes, spearheads, bracelets with circular cross-sections, bronze vessels, etc. The types that differ from the previous period are the onion-, spindle- and cylinder headed pins, golden belts, spike-grip knives, Herrenbaumgarten type knives and neck rings with twisted ends.¹⁰³ In comparison with the Moigrad hoard series the typological scheme of the artefacts changes and the structure of the hoards suffers modifications as well.¹⁰⁴ The metallurgical centres from the Upper Tisza region and Transylvania show slight alterations, mainly regarding the forms and decoration.¹⁰⁵ At the same time in the HaB period, in central and southern Transylvania, a concentration of the hoards can be outlined, which continues in fact a process started in Bz.D, with the increase of the hoards of Uriu–Opályi type, north to the Someș River.¹⁰⁶

Although the hoard from Sâmbriaș is incomplete and right after the discovery it was divided between the finders, it can be easily placed in the structural characteristics of the hoards from the HaB2 period. The large number of the socketed axes is shown not only by the clean socketed axes hoards, but also by the domination among other types of artefacts within hoards.¹⁰⁷ If we take into consideration and accept the existence of the seven metal vessels, the structure of the hoard from Sâmbriaș shows good similarities with the Fizeșul Gherlii II and Sângeorgiu de Pădure I hoards. Even if the proportion of types is almost identical in the case of the two eponymous finds, and slightly different at Sâmbriaș, we have to stress out the privileged nature of the two leading types within the hoard from Sâmbriaș. In all of the three bronze hoards mentioned above, the socketed axes and metal vessels make up around 85–90% of the entire hoard.¹⁰⁸ At the same time the possibility of the presence of some metal vessels in the hoard from Sâmbriaș is sustained by the appearance in the Transylvanian region of the Sângeorgiu de Pădure type cups, but mostly those of Kirkendrup type, which were recovered in a quite large number in the hoards dated to this period.¹⁰⁹

¹⁰² Wanzek 1989, 164–165.

¹⁰³ Mozsolics 2000, 25–26.

¹⁰⁴ Metzner-Nebelsick 2005, 322. Beside the new forms a decrease of the number of artefacts within the hoards is noticeable.

¹⁰⁵ Kemenczei 1996b, 258.

¹⁰⁶ Soroceanu 1982, 367–368. The connection of these hoards with the Upper Tisza region metallurgical centres is made through Northern Crișana, mostly in the valleys of the large rivers.

¹⁰⁷ Soroceanu–Lakó 1995, 191, Tabelle 1; Metzner-Nebelsick 2005, 322–323; Bratu 2009, 61–75, fig. 36. O. Bratu separates two regions with high socketed axes hoard concentrations: the first one is in the plain of the Tisza River, between the Tisza, Crasna and Mureș Rivers, the second one in the centre of Transylvania, between the Someș and Olt Rivers.

¹⁰⁸ See also Soroceanu 2005, 396–397, and n. 108, where the researcher draws the attention upon the usage beside the metal vessels of adjacent artefacts, too, either 3 or 7 pieces; in the second case even a preponderance of the socketed axes can be outlined.

¹⁰⁹ Soroceanu 2008, 53–67, 69–71.

Last but not least the presence of a small creek, at around 300 m from the find spot, has to be mentioned. Normally a direct connection between the current and the bronze hoard cannot be made, but the different theories regarding a wet find spot in the case of the bronze hoards is very well known. But taking into consideration the general characteristics of the field and the relative distance towards the creek, the placement of the hoard from Sâmbriaș in the category of the slope finds is more plausible.¹¹⁰ Anyhow the presence of the peak, the Darvas creek, and the slope from where there is a very good visibility on the whole valley of Sâmbriaș make enough arguments for considering this finding place having some supernatural meanings and significance. In spite of these and without knowing the exact conditions of the recovery, without the exact placement of the artefacts in the ground a clear answer or conclusion is very difficult to give.



Fig. 2. The Darvas creek in the background.

Finally it has to be stressed out that the hoard from Sâmbriaș, although it remained incomplete and the information regarding the metal vessels have to be questioned, it organically adapts to the hoarding phenomenon from the end of the Bronze Age and the beginning of the early Iron Age in Transylvania. Through the socketed hammer already published and through this new re-evaluation of the hoard from Sâmbriaș, the boundary of the village appears as a place with important and rich prehistoric bronze artefacts. The more or less reliable information given by the locals and the witnesses only completes and fulfils these findings.

Based on the above mentioned typological characteristics, chronological frameworks and listed analogies, I believe that a HaB2 dating (9th century BC) is proper, without a continuation in HaB3. There is no single piece in the hoard from Sâmbriaș, which sustains this later positioning. The socketed axe with concave rim (nr. 5), the socketed hammer (nr. 6) and the knife fragment (nr. 8) are quite interesting, which prove the heritage of some HaB1 artefacts in the new HaB2 period.

¹¹⁰ Soroceanu 1995, 23, footnote 33. It mentions that during the Bronze Age a preference for the south orientated slopes can be observed (or its variants), but in the HaB period the north orientated slopes are dominant (or its variants).

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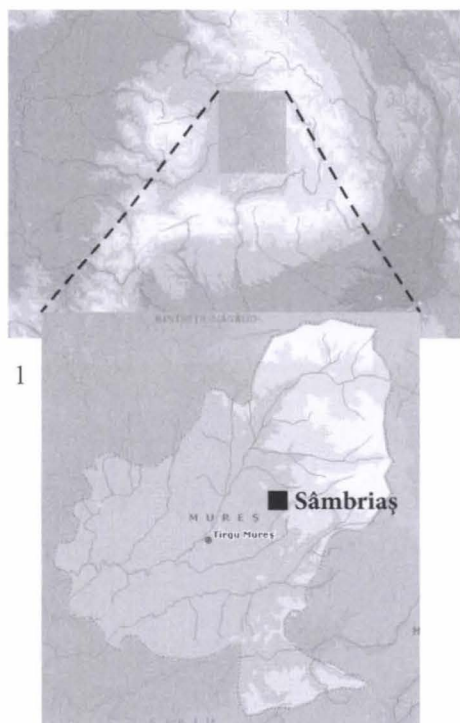
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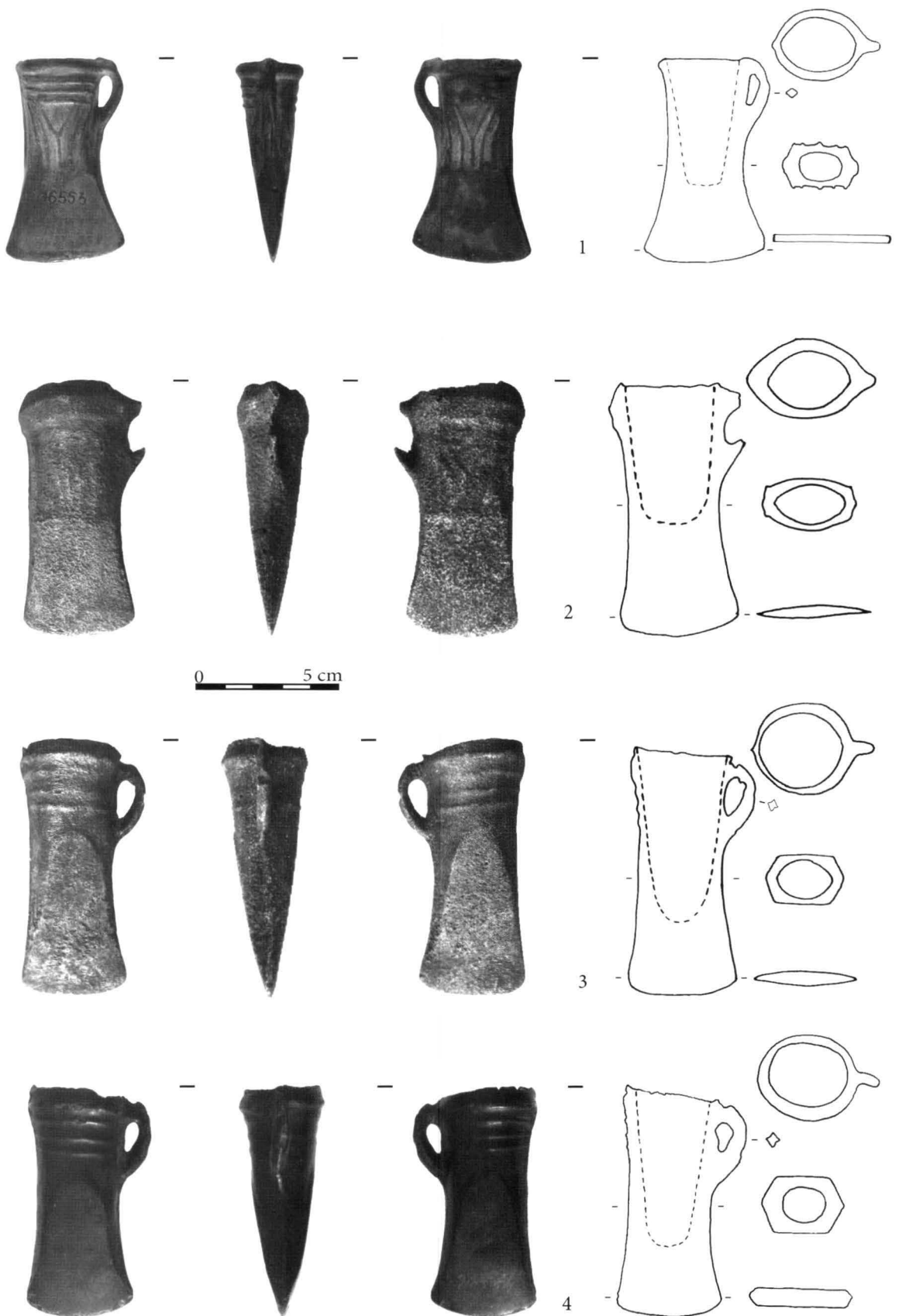
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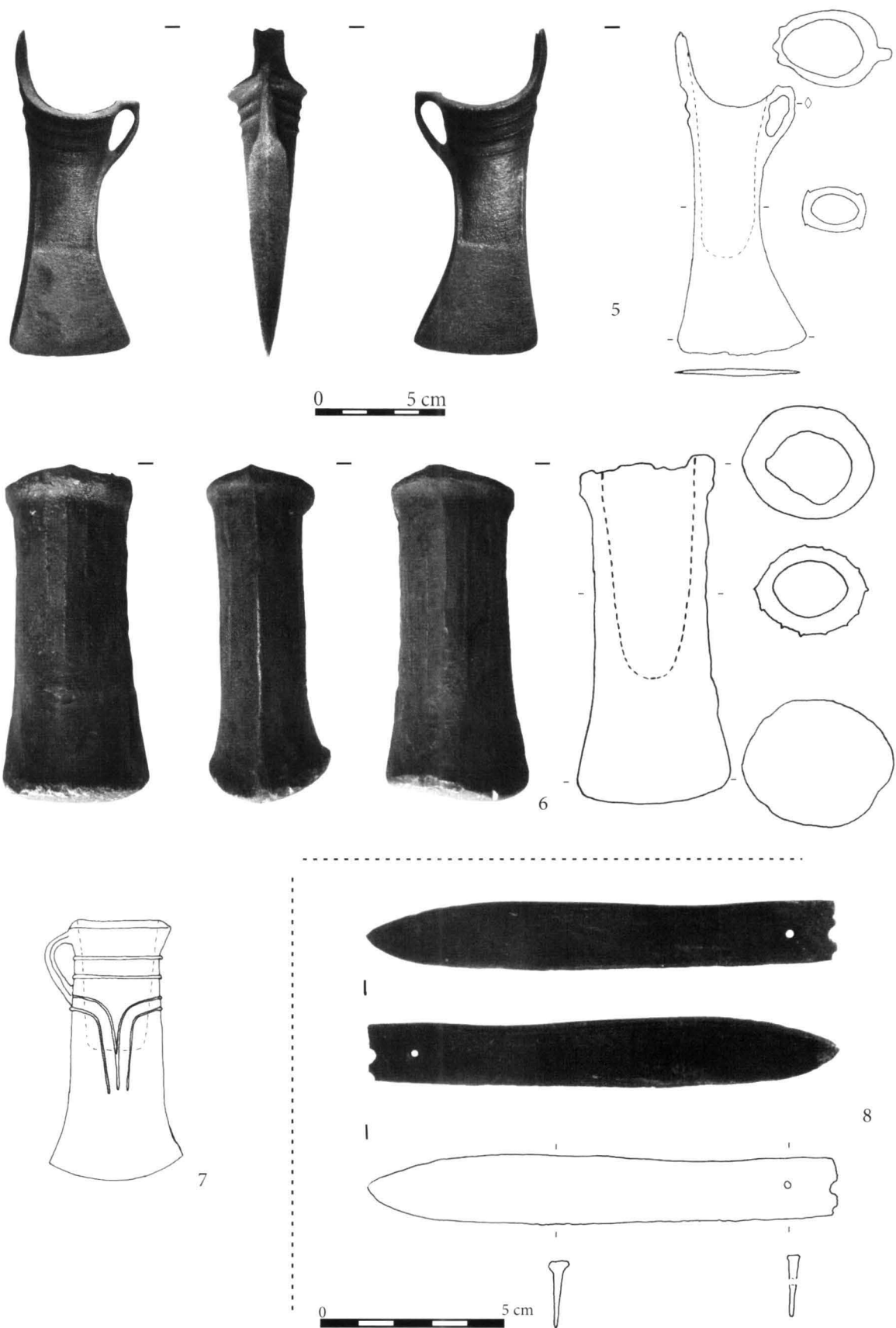


Plate 3. The hoard from Sâmbriaș (7. after Székely 1977).



Plate 4. Sâmbriaș. Macro photos with the surface of the bronze objects.
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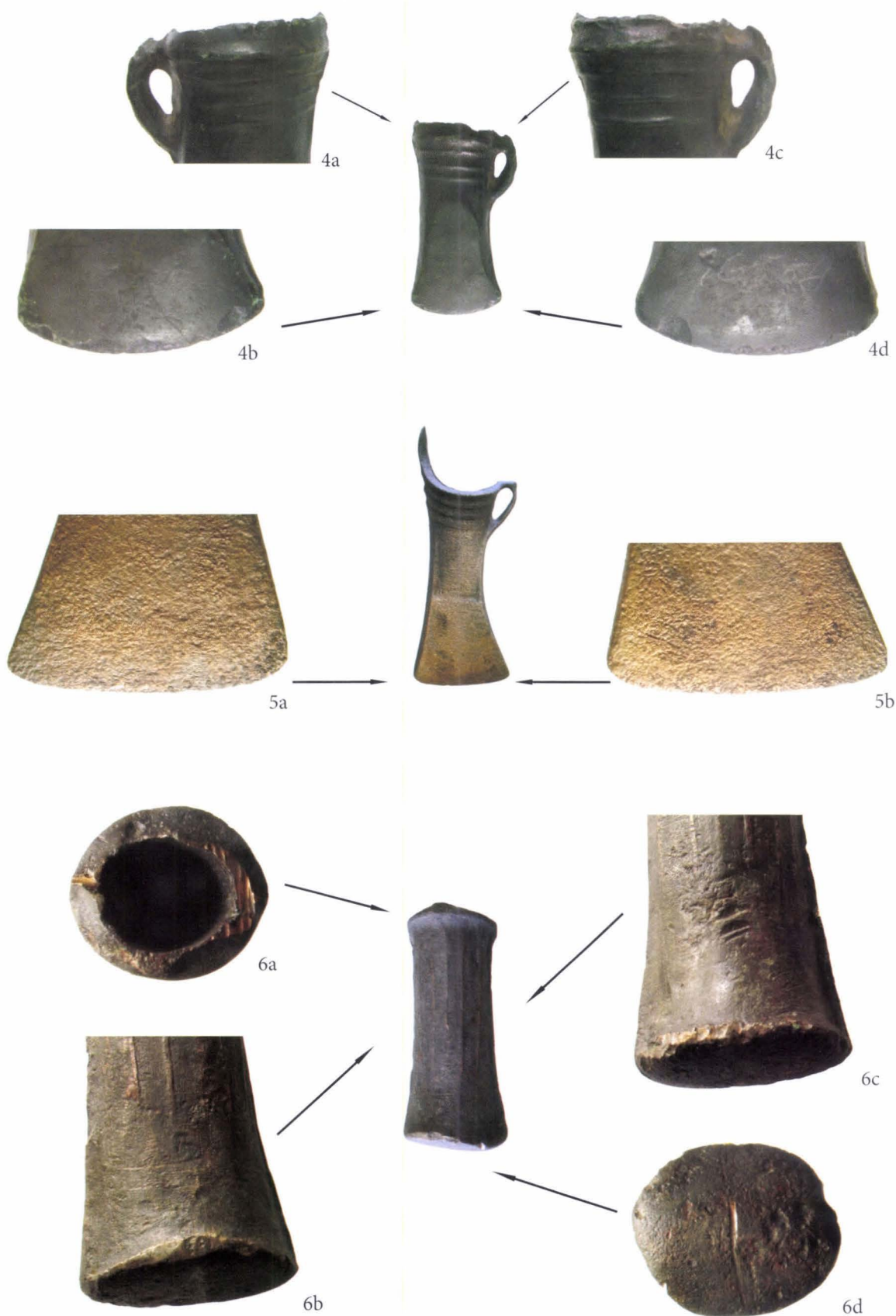


Plate 5. Sâmbriaș. Macro photos with the surface of the bronze objects.

TWO LA TÈNE BRONZE DISCS FROM TÂRGU MUREȘ, TRANSYLVANIA

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Keywords: Celts, disc, triskele, helmets, harness-mounts, scabbards

In the yard of the Elementary School nr. 2 from Târgu Mureș, in a drainage trench, two discs were incidentally discovered. The exact date and circumstances of the discovery are not known, the pieces were inventoried in the 21st of January 1981 in the collection of the Mureș County Museum, and they were published for the first time in 1994.¹ Regarding their functionality, the discs were interpreted as clothing appliqués or harness ornaments. Later, in the archaeological repertory of the Mureș County,² the village Micești³ is mentioned as their place of discovery, a village that was merged with Târgu Mureș in 1564 (!). The author refers to the paper of V. Zirra from 1971, where neither the piece nor the information can be found. Therefore, these dates of the repertory can be considered erroneous by any means. The pieces went through conservation-restoration processes in the ninth decade of the last century, when they acquired a blackish colour. Besides the qualitative and aesthetic upgrading, the recent reconditioning of the artefacts brought to light some possible aspects relevant for their functionality (Fig. 1).

Description of the discs

1. Domed, hemispherical disc, made by lost-wax casting – ‘à cire perdue’ – method, of bronze, decorated with continuous whirling or *triskele* in relief, with a globular knob at each of the three terminations of the spirals, creating a tricorné⁴ in the middle of the plate. This main ornament was completed at its extremities by other three, smaller globular knobs; each of them was placed at the end of a semi-spiral, composing the so called comma-leaves or stud-throws,⁵ in relief. The whole margin of the ornament was bordered by a curved line in relief. Six cavities of the knobs can be observed on the inside. The attaching of the piece could be determined

¹ Petică 1994, 34, pl. 3/7, 8.

² Lazăr 1995, 256, LXXXVI.1.A.r.

³ Hungarian: Kisfalud.

⁴ Jope 2000, 384.

⁵ Jope 2000, 380, 384.



Fig. 1. The bronze discs from Târgu Mureș.

before the recent conservation, after the restoration of the artefacts: it was realised with a pin and a perforated rivet on the centre of the inner side of the piece, broken in antiquity. On this rivet a rusted, poorly preserved iron plate could be observed. The iron core could be detected in the engraving of the bronze rivet, too. Diameter: 43.88 mm, thickness: 1.83 mm, weight: 30 gr.

2. Domed, hemispherical disc, smaller than the previous one, cast of bronze using the same lost-wax method, with slightly different ornament: whirling or *triskele* formed by three meanders in relief, one of their end with globular, 'impressed' cordon and the other with three other, smaller knobs in relief, as well. The attaching of the piece was realized with a rivet placed on the inside of the disc, chipped in antiquity. The piece had smoothened surface on the inside. Diameter: 26.82 mm, thickness: 2.00 mm, weight: 13 gr.

Both artefacts are in the collection of the Mureș County Museum, inventory nr. 7008 and 7009.

Functionality

In many cases such artefacts were catalogued as phalera or appliqués, clothing or harness ornaments, while their exact role could not be determined. However, their form and fastening system indicate some possibilities. Hereinafter we will enumerate some interpretations of the domed, hemispherical discs which present technical and attaching similarity with the artefacts from Târgu Mureș.

The artefacts considered clothing ornaments usually have a mobile pin, like the piece from Krakow, Poland.⁶ Three such bronze pieces were discovered at Curtuiuşeni.⁷ Similar, but

⁶ Poleska 2006, fig. 21/23.

⁷ Nánási 1973, 34, 36, VII/3–5.

flat buttons were considered shoes accessories.⁸ In the grave from Cristuru Secuiesc an analogously shaped and stylistically similar button is mentioned, interpreted as a decorative linchpin from a wagon,⁹ or more probably harness-mount (Fig. 2). However, its dimension is different, since the head of the pin is smaller. At the beginning, the pieces from Târgu Mureş were interpreted as harness-mounts, too. The fastening of these discs is multiple; some of these ornaments were attached with rivets,¹⁰ like in the case of the pieces from Târgu Mureş. Usually these artefacts are larger, such as the one from Hořovičky, Bohemia¹¹ of 12 cm in diameter. In some cases the determination of their functionality was possible due to the special conditions of discovery, like in the case of the harness-mounts from Wintrich, Kr. Bernkastel-Wittlich, Germany.¹²

In the warrior grave from Ciumeşti two similarly bronze casting appliqués were found (diameter 57 mm),¹³ attached to the horizontal, closing iron plate of the chain mail with a central rivet (Fig. 3).¹⁴ Considering its dimensions as well as the technique, it is a proper analogy for the larger disc from Târgu Mureş. Another such chain mail decorated with hemispherical buttons is known from Matochnika (Bulgaria).¹⁵

Along with the engraved ornaments, on the Celtic scabbards, decorative hemispherical metal plates can be observed. These embellishing elements appear usually in pairs, on the upper frontal reinforce below the mouth, as well as on the inset discs of the chape-end. These are of different dimensions; some have less than 10 mm in diameter while others are larger. The pieces from Târgu Mureş probably were not inset discs of the chape-end, because usually these are smaller. The width of the mouths of the scabbards generally measure 45–55 mm, and the ornament from the reinforcement has similar dimensions to the smaller discs from Târgu Mureş. Analogies for buttons on scabbards, decorated in the plastic style can be mentioned from Balassagyarmat or Szob, Hungary.¹⁶ These ornamental elements were frequently attached with rivets, reason why they easily detached, like in the case of the scabbard from

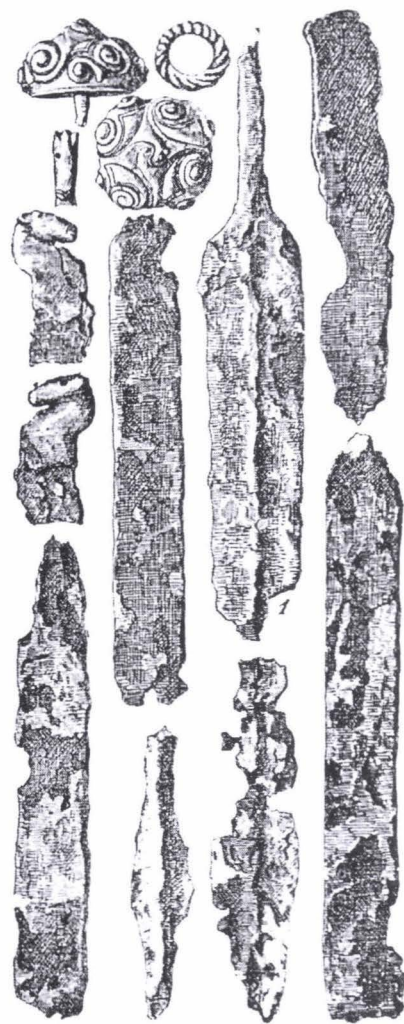


Fig. 2. The grave inventory from Cristuru Secuiesc, Romania (after Roska 1929).

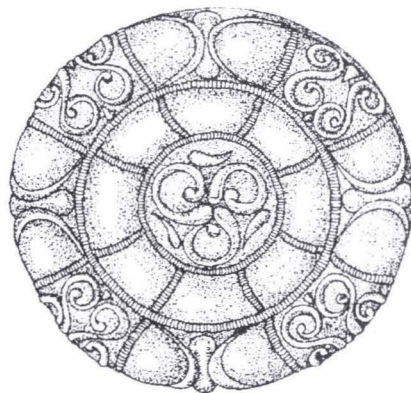


Fig. 3. Bronze disc from Ciumeşti, Romania (after Rusu 1969).

⁸ Megaw 2003, 231.

⁹ Roska 1929, 315, fig. 83; Ferencz 1997, 6, pl. I/10.

¹⁰ Schönfelder 2002, 258, Abb. 161.

¹¹ Filip 1976, VIII/3.

¹² Schönfelder 2002.

¹³ Rusu 1969, 276, Abb. 5; Rusu-Bandula 1970, 7–8, pl. VIII; XIV.

¹⁴ Rustoiu 2006, 51.

¹⁵ Lazarov 2006, 171, 178, fig. 11.

¹⁶ Szabó-Petres 1992, 58, 85, 121, pl. 3, 71; Szabó 2005, 142.

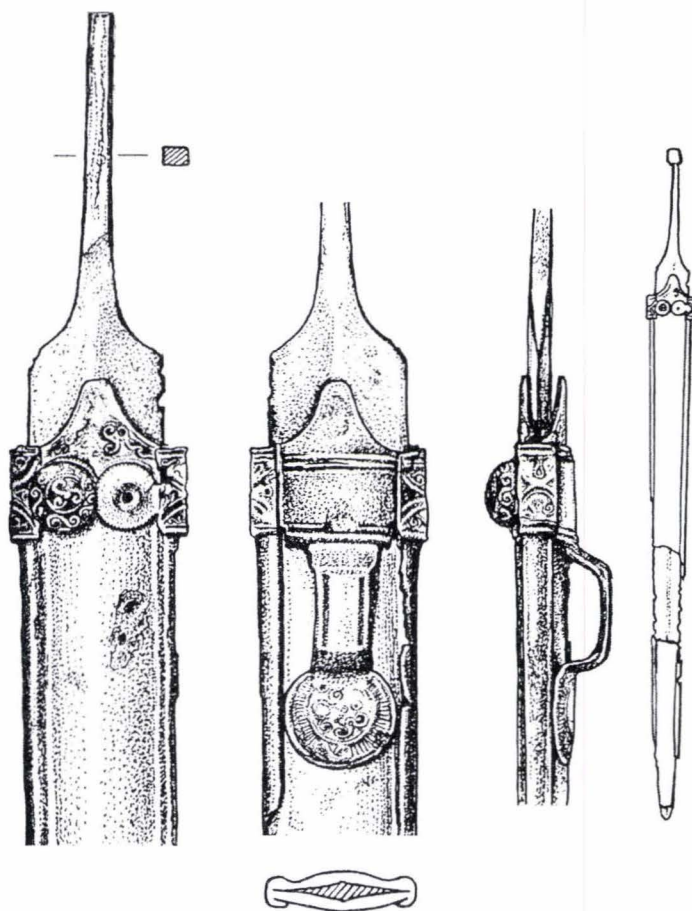


Fig. 4. The scabbard from Gáva, Hungary (after Szabó-Petres 1992).

appears,²² but the attaching method cannot be reproduced.²³ Presumably the button had the same functions as the discs on the helmet from Ciumești.

The helmet from Silivaș (Fig. 5/6) also has two domed hemispherical buttons: a flatter one on the lower part of the bowl, probably with the functional role of attaching the cheek-guard, too, and another on the top of the helmet. Both are abundantly ornamented with Waldalgesheim style motifs.²⁴ From the widely known helmet from Amfreville, France, the upper ornamental button detached itself (Fig. 5/5), but the binding rivet and the pin were preserved.²⁵ Similarly attached ornaments can be observed on the helmet from Monterenzio-Monte Bibele²⁶ and Castelrotto in Italy (Fig. 5/3),²⁷ or Trbinc, Slovenia²⁸ (Fig. 5/4). The artefacts from Sitzerath were also interpreted as helmet attachments, in a first instance and reconsidered later as harness-mounts.²⁹

Aiud,¹⁷ or from Gáva–Katóhalom (Fig. 4) and Szob¹⁸ in Hungary.

Similar artefacts with a functional as well as decorative role appear on the helmets of the period; the separate buttons from the top of the bowl are a specific element of the Celtic helmets, while for example in the case of the Etruscan type these are organic part of the metal plate.¹⁹ On the bowl and cheek-guard of the helmet from Ciumești unornamented knobs fixed with rivets can be observed (Fig. 5/1). Their purpose was to enforce the bowl as well as to fix the leather to which the mobile cheek-guards were attached.²⁰ A disc with a similar role can be observed on the helmet from Lagole di Calalzo, Italy, where for fastening, the plate was entirely perforated with the rivet.²¹ Together with unornamented discs,

on the helmet from Apahida (Fig. 5/2) a lateral button with a *triskele* in relief

¹⁷ Ferencz 2007, pl. XI.

¹⁸ Szabó-Petres 1992, pl. 13, 72, III/1.

¹⁹ Schaaff 1988b, 319, Abb. 1.

²⁰ Rusu 1969, 269, Abb. 2; Rusu-Bandula 1970, 4, pl. IX.

²¹ Gambacurta 2001, 317, fig. 1/1.

²² Rusu 1969, 291–3, fig. 10/1–3; Rusu-Bandula 1970, pl. XVII.

²³ Zirra 1976, 143–4, fig. 11/1, 1a.

²⁴ Rusu 1969, 287, 299, fig. 9 / a–d; Rusu-Bandula 1970, pl. XIX; Crișan 1973, 61, fig. 4/a–b.

²⁵ Duval *et al.* 1986, IV/2.

²⁶ Müller 1989, 50, Abb. 17.

²⁷ Schaaff 1974, 158, Abb. 8–10, T. 48–53.

²⁸ Schaaff 1988a, 296, Abb. 7–8.

²⁹ Megaw 2003, 231.

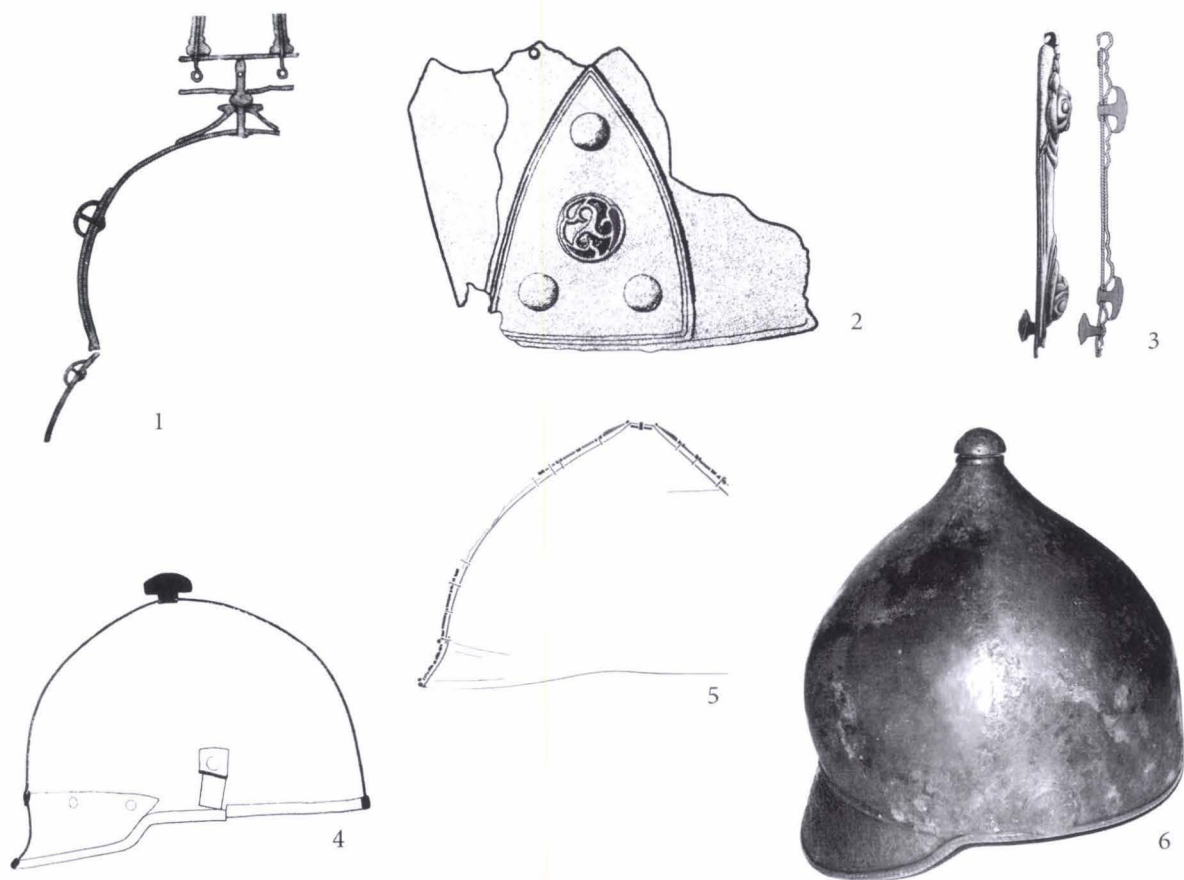


Fig. 5. 1. The section of the helmet from Ciumeşti (after Rusu 1969); 2. The fragments of the helmet from Apahida (after Zirra 1976); 3. The section of the helmet from Castelrotto, Italy (after Schaaff 1974); 4. The section of the helmet from Trbinc, Slovenia (after Schaaff 1988a); 5. The section of the helmet from Amfreville, France (after Duval *et al.* 1986); 6. The helmet from Silivaş (photo provided by A. Rustoiu).

* * *

Due to the differences of the attaching modalities (by rivet with pin in one case and simple rivet in the other), the dimensions and the casting (the inner part of one piece is smooth, the other has cavities – the ‘negatives’ of the ornamental knobs), as well as the different ornament (different ornamental knobs, *triskele* realized by three lines) we consider that the two discs from Târgu Mureş were not part of the same suite. However, the same place of discovery and close technique of casting indicate a common workshop and a single owner.

Most probably the larger artefact was the ornament from the fixing plate of a chain mail. Accordingly, the amorphous rusted iron piece from the inner part of the piece could be from the fixing plate of the chain mail. The interpretation is also plausible because of its size, similar to the analogous piece from Ciumeşti. The combination of iron and bronze elements was a common practice of the La Tène workshops as it is shown by the iron pins with bronze buttons from Courte, Belgium or Paris (?), France.³⁰

Based on its attaching method and size, the smaller piece from Târgu Mureş could be an ornament from the bowl of a helmet, such as the ones from Amfreville or Silivaş, or a fixing element of the leather to which the mobile cheek-guard was attached, like in the case of the helmet from Ciumeşti. It is also probable that this smaller artefact was a decorative element of the enforcement from the mouth of a scabbard or a harness-mount.

³⁰ Megaw 1970, nr. 149, 166.

Regarding the chronology of the discs, one can observe that the artefacts from Târgu Mureş as well as the helmet from Apahida or the chain mail with ornamental discs from the inventory of the grave unearthed at Ciumeşti are the creation of the craftsmen accustomed to the plastic style from the La Tène B period,³¹ (approximately 3rd century BC).³² This artistic style is widely generalized in time and space; therefore, scholars properly considered that such artefacts can only be dated more precisely when they turn up from well defined feature, along with other objects with chronological relevance.³³

The ornamental discs from Târgu Mureş are exceeding aesthetic artefacts of the La Tène artistic creations from the eastern parts of the Carpathian Basin.³⁴ They probably decorated a weapon or armour of a Celtic warrior, probably lost in a presently unsolvable conjuncture.

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³¹ Jacobsthal 1944, 97–105.

³² Berecki 2008, 63.

³³ Szabó 2005, 140.

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- Fig. 5. 1. The section of the helmet from Ciumeşti (after Rusu 1969); 2. The fragments of the helmet from Apahida (after Zirra 1976); 3. The section of the helmet from Castelrotto, Italy (after Schaaff 1974); 4. The section of the helmet from Trbinc, Slovenia (after Schaaff 1988a); 5. The section of the helmet from Amfreville, France (after Duval *et al.* 1986); 6. The helmet from Silivaş (photo provided by A. Rustoiu).

DOMINA AND DOMINUS FROM CRISTEȘTI (MUREȘ COUNTY)

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Keywords: religion, Roman, Dacia, Cristești, mould, terracotta

With this paper¹ we would like to draw the attention to a terracotta mould from the collections of the Mureș County Museum which can possibly be related to the cult of a divine couple known as *Dominus* and *Domina*.² The artefact was discovered during excavations in 1928³ at Cristești/Maroskeresztúr (Mureș/Maros County).⁴

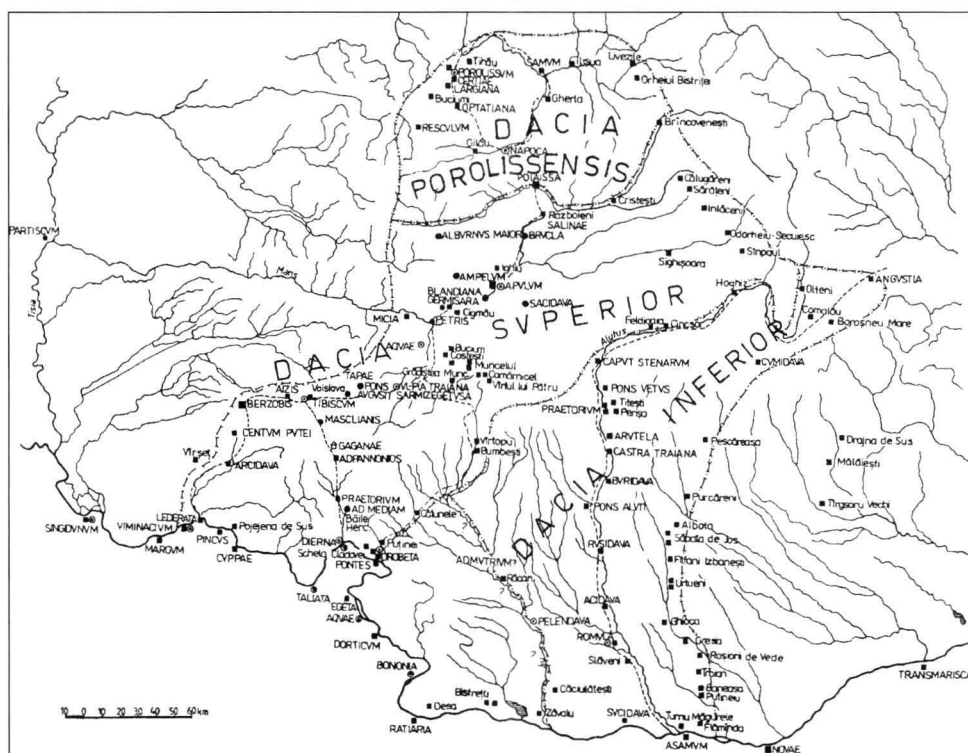


Fig. 1. Roman Dacia under the reign of Hadrian (after I. Piso modified by Zs. Visy).

¹ I would like to express my deepest gratitude to my fellow colleagues Mariana Egri, Manuel Fiedler, Constanze Höpken, Nikola Lyons, Dávid Petruț and Ádám Szabó for the discussions and the suggested corrections.

² Their name appears in many cases in the form of *Domnus* and *Domna* as a result of a Latin syncope, this variant is frequent in the 3rd and the 4th centuries, but sometimes it is also present in the 2nd century. See: Fehér 2007, 373.

³ Floca 1937, 4–5.

⁴ The most recent and complex synthesis about the site is: Man 2002.

The site is one of the best known Roman settlements from the eastern part of the province (Fig. 1). It is mainly located at the eastern extremity of the modern village in the area called *Cetatea de pământ/Földvár* on the left bank of the Mureş River (Fig. 2). The settlement also stretches to the right bank of the river, which led to the hypothesis that a bridge, or a river crossing was in this area. The site has been known since the second half of the 19th century and excavations have been undertaken in 1882 (F. Deák and F. Kovács), 1928 (A. Filimon and S. Ferenczi), 1950 (D. Popescu), 1961 (D. Protase, A. Zrínyi and Á. Dankanits), 1972 (A. Zrínyi) and 1994 (N. Man, A. Husar and D. Protase).

There has been much debate about the nature of the settlement, whether it is civilian or military, due to the fact that many finds discovered at Cristeşti can be related to the military (mainly the *Ala I Gallorum et Bosporanorum*), but until now no military fort has been identified. During the excavations important structures (kilns, workshops) and large quantities of ceramic material has been unearthed, showing evidence of a large settlement specialising in pottery production.⁵

The mould⁶ (Fig. 3–4) from Cristeşti is known to the scientific community as one used to produce votive objects.⁷

The yellowish brown burnt clay mould was tempered with fine sand and fired in oxidant conditions.⁸ The piece is fragmentary (max. preserved width: 9.2 cm; max. preserved length: 13.4 cm; max. thickness: 2.53 cm), only the lower part and the left side is preserved, whereas the right side is completely broken and from the upper side only a small curvy part is preserved. The inner part of the mould (width: 6.2 cm; max. preserved length: 6.4 cm; max. thickness: 1.6 cm) had probably a rectangular shape and perhaps it was just the base bearing the inscription for a pair (?) of terracotta⁹ busts or figurines of the divinities mentioned in the inscription.¹⁰ The retrograde text of capital letters engraved before the firing appears in negative and the inscription's field was framed by an astragal on the upper and on the left side. We can presume that the astragal was present on the right side as well.

In the IDR¹¹ the text was completed to:

---] ina et/ ---]nus prop(itii).

⁵ For the research history, the military unit and the character of the settlement see also: Popescu 1956; Tudor 1968, 272–273; Zrínyi 1977; Gudea–Zrínyi 1984, 54–57; IDR 1988, III/4, 101; Lazăr 1995, 102–105; Husar–Man 1996, 6–87; Gudea 1997, 103; Man 2002, 5–23; Nemeth 2007, 195–196; Marcu 2009, 128–129.

⁶ Inventory number: MJM 548.

⁷ Floca 1937, 10, nr. 8; IDR 1988 III/4, 124, nr. 167; Man 2002, 162, nr. 3; Man 2003, 27, nr. 177; Man 2005, 20–21.

⁸ Due to the conservation work undertaken on the surface of the object a more detailed macroscopic description of the fabric is not possible.

⁹ Until we do not find any terracottas produced in this mould we can not exclude totally the possibility that this mould was used for the preparation of ritual cookies; in this sense see the discussion concerning the functionality of relief medallions with decorations in negative, having larger dimensions and a higher rim at: Cociş–Ruscu 1994, 121.

¹⁰ Several terracotta figurines are known from *Apulum* (Igna 1935, 70–71, fig. 31; Popa 1978, 153–158, fig. 18) and *Ulpia Traiana Sarmizegetusa* (Alicu *et al.* 1979, 120–121, no. 270, 272) where a sitting divine couple (man and woman) are represented, these ones do not have any inscriptions and have been usually identified as *Jupiter* and *Juno*, *Aesculapius* and *Hygeia* or *Dis Pater* and *Proserpine* (see: Bărbulescu 1985, 125; Nemeti 2003, 256–257). We do not have evidence that they have any link to the cult of *Dominus* and *Domina* but we have to consider them as possible parallels for the terracottas which might have been produced with the mould from Cristeşti.

¹¹ IDR 1988 III/4, 124, nr. 167. Accepted also by: Man 2002, 162, nr. 3; Man 2003, 27, nr. 177; Man 2005, 20–21.

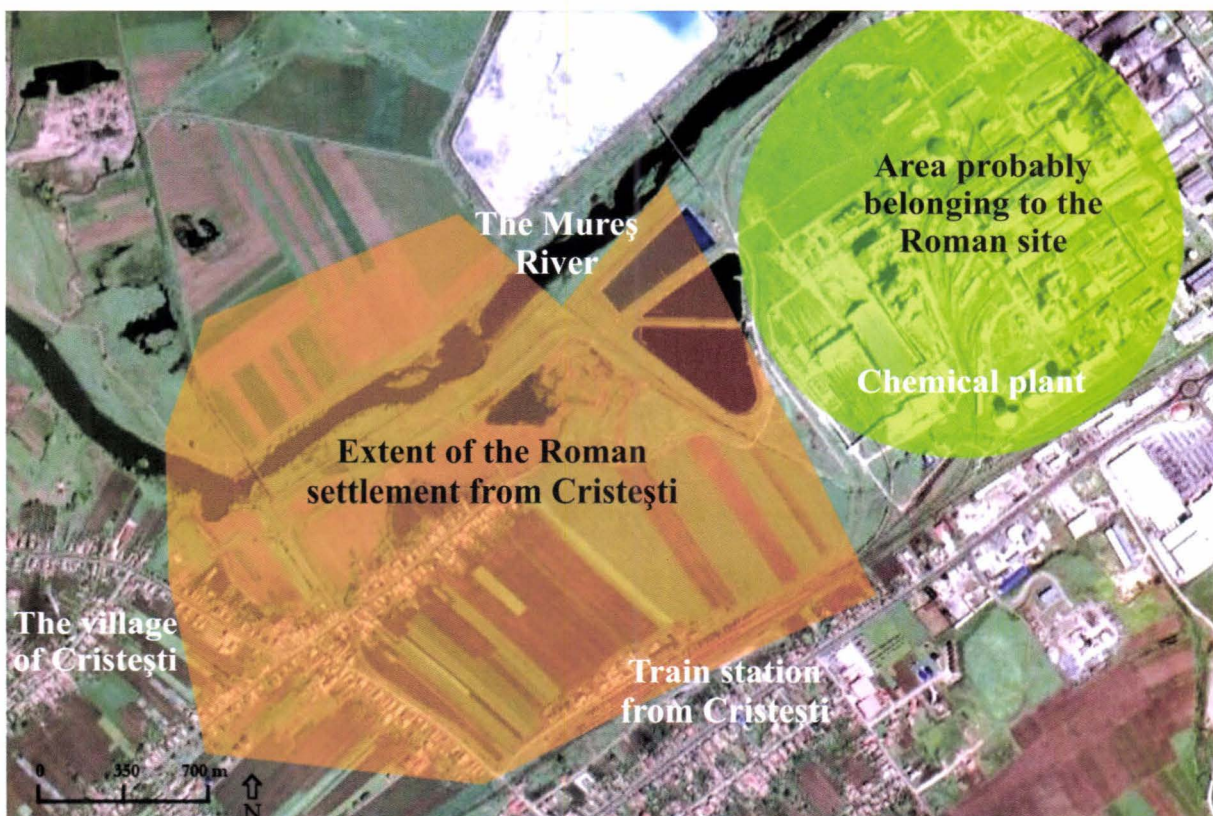


Fig. 2. The maximum extent of the Roman settlement from Cristești (Sz. Pánczél based on Man 2002).

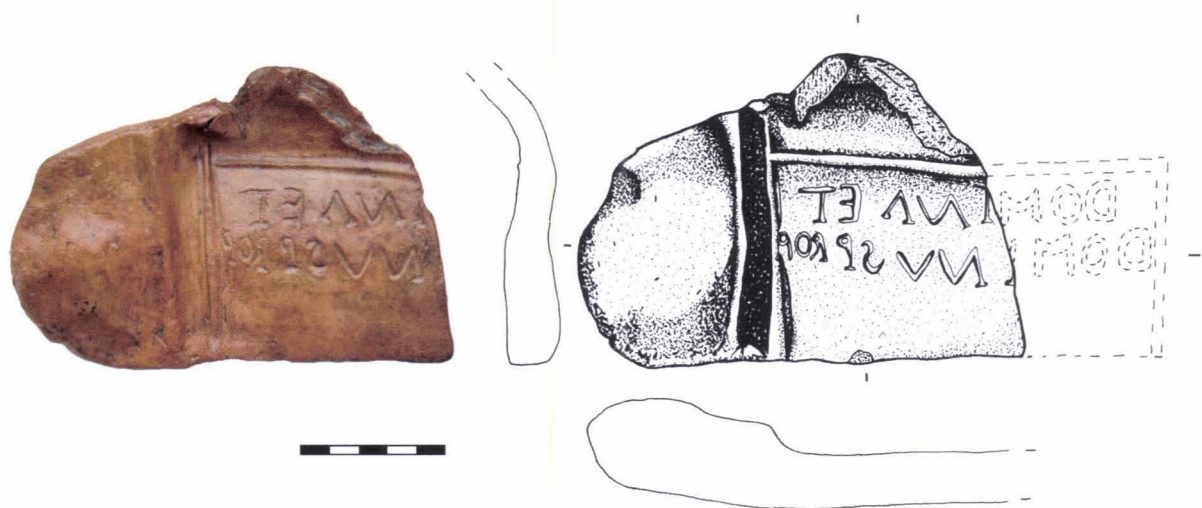


Fig. 3. The terracotta mould from Cristești (photo: Sz. Pánczél; drawing: L. Vass).

In the first row a vertical *hasta* next to the fracture was interpreted as the letter *I*. By a careful analysis the lower part of a vertical *hasta* is to be seen in the second row as well. If we accept that we could have in both cases an *I* in the inscription, we can complete it to:

---]ina et/ ---]inus prop(itii).

The authors of the IDR suggested that the name of the goddess from the first row could be *Regina* or *Domina* and that the name of a god should be in the second row bearing the epithet *propitius*. Bearing the above in mind a possible reconstruction of the inscription could read:

[Dom]ina et/ [Dom]inus prop(itii).

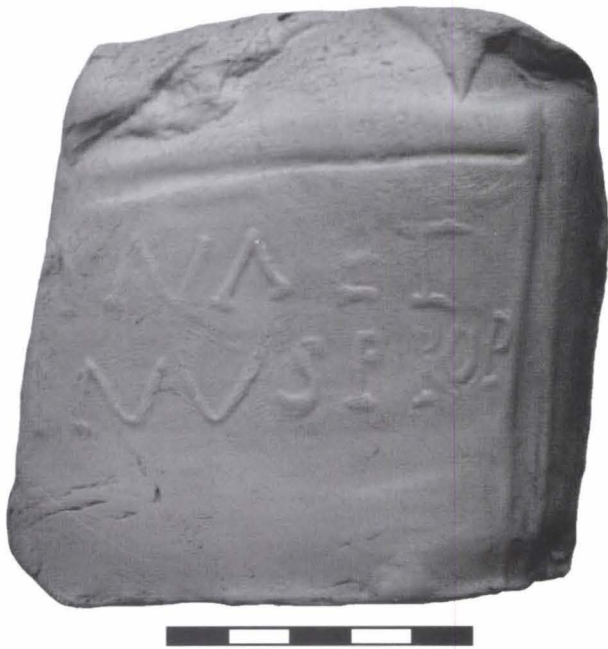


Fig. 4. Modern cast made with the mould (Sz. Pánczél).

Recently two major discoveries have been made which can be connected to the cult of *Dominus* and *Domina*. In 2003 a bronze relief belonging to the group of the cult of the so-called “Danubian riders”¹² was discovered in *Quadrata* (Barátföldpuszta, Győr-Moson-Sopron County, Hungary)¹³ during a metal detecting survey, bearing the name *Dominus* in dative, so it appears *Domino*.¹⁴ The second find comes from the excavations of a small sanctuary in the *area sacra* of *Colonia Ulpia Traiana Augusta Dacica Sarmizegetusa* (Sarmizegetusa/Várhely, Hunedoara/Hunyad County)¹⁵ dedicated to the “greater gods” *Domnus* and *Domna*, by a centurion of the *III Italica* legion.¹⁶

The new bronze relief from *Quadrata* prompted Á. Szabó to underline the need for a reassessment of the hierarchy of the gods in the so-called “Danubian riders” cult. In his assertion, *Dominus* and the goddess (*Domina*) as his divine companion were the central figures of the cult and the riders only had a secondary position. Based on the theories of L. Zjotović and I. Tóth,¹⁷ he even suggested that we could have a celestial divine couple: a Sun god and the Moon goddess linked to the pre-Roman (Illyrian) traditions of the region.¹⁸

Dominus (Greek κύριος) and the feminine version of him *Domina* (Greek κύρια), were usually an epithet of gods or the imperial family.¹⁹ In some dedications, mainly from the Danube provinces and the Balkans area, they appear together as a substitute for the names of a divine couple (see the table from the Appendix).²⁰ The hypothesis that this practice is due to an

¹² The most recent and complex synthesis is: Nemeti 2005, 200–216.

¹³ Gabler 2003.

¹⁴ Bíró 2006, 53–54; Szabó 2007a (and the Italian version of it: Szabó 2007b).

¹⁵ Preliminary reports of the excavations have been published: Fiedler–Höpken 2005; Fiedler–Höpken 2007; Höpken–Fidler 2008.

¹⁶ Fiedler–Höpken 2007, 445–446.

¹⁷ Zjotović 1998; Tóth 2003.

¹⁸ Szabó 2007a, 103.

¹⁹ Szabó 2007a, 99.

²⁰ Most of the inscriptions have been collected and catalogued in: Szabó 2007a, 99–101.

interdiction to pronounce or write down their true names is probable, but impossible to prove. From the known inscriptions in which *Dominus* or *Domina* are mentioned, we selected only those in which they appear together and therefore it can be certain that their names are not only epithets of other gods. According to our information there are a total of ten such inscriptions. In these, *Dominus* appears in three cases without the syncope, in five (in the table from the Appendix marked with boldfaces) with it, and in two cases it could not be observed (in the table from the Appendix written with grey); *Domina* appears only in two cases without the syncope and in eight (marked with boldface) with it. So we can conclude that there is a preference for the version with the syncope. Based only on this quantitative analysis and the fact that the *hastae* from the first and the second rows of the mould from Cristești could also belong to an *M*, the text could have been as well:

[Do] m(i)na et/ [Dom](i)nus prop(itii).

In only one case, the inscription from *Naissus*, they appear in association with a third divinity *Bonus Eventus*, the god of commercial and agricultural success mostly related to *Fortuna*.²¹ This association may suggest that they were accepted at least at regional level in the Roman pantheon even if their real names were not to be pronounced. In the same inscription the goddess appears with the epithet *regina* quite frequently used for major feminine divinities,²² which may suggest that she has a high position in the divine hierarchy of some individuals. This possibility is also underlined by the inscription from *Sarmizegetusa* in which they appear as the “greater gods” and their temple is situated in the *area sacra* next to sanctuary of *Liber Pater*.²³ The epithet *propitius*²⁴ on the mould was used in the sense of favourable, gracious, which points to the association with *Bonus Eventus* or with the concept of the “greater gods” or “queen” goddess.

In almost every inscription, *Dominus* appears first and then *Domina*, while only in the inscription from *Naissus* and the one from Cristești is the goddess mentioned first.

Only in our inscription is the name of the divinities in nominative.²⁵ If the terracottas produced in the mould were not votive objects their name can be in nominative as well, if the casts produced with the mould were votive objects, we can presume that this divine couple did not have a standardised iconography and the inscription on the terracotta was rather intended as a hint to identify them. The fact that this mould was found in Cristești, a well known pottery production site, gives a greater indication of the popularity of this cult than a simple dedication because with the mould many series of terracotta figurines (?) could be produced, which means that probably a significant demand for such products existed. There is no reason to think that the products were meant to serve only the local demand, because Cristești had an important role in providing ceramic products to a larger area in eastern Dacia.²⁶

The dedicators have in five cases a military background (*Ampelum: beneficiarius procuratoris*; *Gorsium: centurio legionis*; *Naissus: strator consularis legionis*; *Noviodunum: centurio*

²¹ For some aspects of these cults in Dacia see: Bărbulescu 2003, 155, 180.

²² In Dacia most frequently this is an epithet of Iuno (Bărbulescu 2003, 196–197, 208, 212, 214, 216, 225), Nemesis (Bărbulescu 2003, 222, 224–225), Diana (Bărbulescu 2003, 177) and Fortuna (Bărbulescu 2003, 244–245).

²³ Fiedler–Höpken 2005, 317; Fiedler–Höpken 2007, 445–446, Höpken–Fiedler 2008, 145.

²⁴ As a relevant parallel we can mention the mould from Bologa, which can be read as [*Habeas propi*]tium geniu[m] and has been related to the imperial cult (Ruscu 1992, 129; Cociș–Ruscu 1994, 122).

²⁵ The other inscriptions have a votive character, so the names of the divinities are in dative.

²⁶ Concerning the role of Cristești for the economic life of eastern Dacia see: Man 2002.

liburna armata; *Sarmizegetusa: centurio legionis*) and the remaining people are probably civilians, amongst them only one woman (*Doclea: Petronia Valentina*). This pattern should not surprise us if we look at the area of distribution and the sites where they come from.²⁷ Given these features and knowing the debated character of the Roman site from Cristești,²⁸ we do not want to support necessarily the military aspects of its religious life, but we have to keep in mind that there might be a strong link between the army and the propagation of this cult.

Taking into consideration only the bronze plaque from *Quadrata*, on which just *Dominus* is mentioned, it is difficult to link the cult of the “Danubian riders” to the inscriptions mentioning *Dominus* and *Domina*.²⁹ Having in mind the fact that the distribution area of the cult of the “Danubian riders” and the evidence for the cult of the divine couple is partially overlapping and have a strong regional character, we can accept a possible link between the two. The identification of *Dominus* and *Domina* with a certain pre-Roman (Thracian or Illyrian) deity based only on the presented evidence at the moment would be quite questionable.

APPENDIX
List of inscriptions dedicated to *Dominus* and *Domina*

Cat. ³⁰	Site	Dedication	Bibliography
1	<i>Ampelum</i>	<i>Domno et Domnae</i>	CIL III, 1289 = 7833; ILS 1892–1916, 4071; IDR 1975, III/3, 300.
3	<i>Potaissa</i>	<i>Domino et Domnae</i>	CIL III, 7671.
4	<i>Carnuntum</i>	<i>Domino et Domnae</i>	AÉ 1974, 494; Vorbeck 1980, Nr. 72.
6	<i>Gorsium</i>	<i>Dom(no) Domn(a)e</i>	RIU 1972, 1523b.
8	<i>Viminacium</i>	<i>Domn[o] et Dominae</i>	CIL III, 7532; ILS 4069; IMS 1976–2, 6; AÉ 1913, 173.
9	<i>Naissus</i>	<i>Domn(ae) Re[g(inae)] et Domno et Bono Evento</i>	CIL III, 8244; CIL III, 13812; ILS 4072; IMS 4, 3; AÉ 1902, 28.
10	<i>Noviodunum</i>	<i>Domino et Dominae</i>	IScM 5, 273; AÉ 1950, 175; AÉ 1961, 120.
11a	<i>Nicopolis ad Istrum</i>	<i>Dom(ino) et Domna(e)</i>	ILBulg 1989, 362.
14	<i>Doclea</i>	<i>[Do]mno et Domn(a)e</i>	ILJug 1963–1986, 1827.
	<i>Sarmizegetusa</i>	<i>Dis Maioribus Domno et Domnae</i>	Fiedler–Höpken 2007, 446.

²⁷ The provinces of Dacia, Pannonia and Moesia are amongst the ones with a high number of military units permanently stationed from the conquest until their abandonment.

²⁸ About the high number of cults attested until now in Cristești see: Zrínyi 1977, 98; Husar–Man 1996, 28–31; Man 2002, 61–65.

²⁹ This has been pointed out also by Szabó 2007a, 101.

³⁰ If indicated, catalogue number from Szabó 2007a.

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A NEW BRICK KILN DISCOVERED IN THE ROMAN SETTLEMENT FROM CRISTEȘTI

NICOLETA MAN–DANIEL CIOATĂ–CORALIA CRIȘAN

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Keywords: brick kiln, stamped tiles, Roman Age

The Roman settlement from Cristești is known as one of the greatest centres of ceramic production in Roman Dacia.¹ The pottery manufactured here is outstanding as quantity and also due to its wide range of shapes, which implicitly point to the various functionalities it once had. The 6 furnaces, together with the abundant pottery material and the numerous moulds discovered in time,² reveal a real local pottery 'industry' which covered not only the needs of the settlement, but spread out to the neighbouring zone, too.

In 2007, the archaeologists from the Mureș County Museum suspended the ongoing works for the construction of a car park, less than 1 km far from the Roman settlement from Cristești (Pl. 1/1). The intervention led to the rescue of a brick kiln, contemporary to the settlement.³ This dating is confirmed by the technique used to build it (with analogies in the Roman world, as proved below) and the materials found in association with it. It was recovered almost entirely, apart from the front wall and the *praefurnium*. The upper part of the kiln had been destroyed in ancient times, after the retrieval of the last batch of bricks and the abandonment of the installation.

At the moment we noticed the remains of the kiln, the north-eastern part of the hill had already been levelled, to create a flat surface for the construction so the forepart and the *praefurnium* of the kiln were dug by the machines. In the excavated soil we did not find many traces of pottery or other installations, which could have been destroyed before our arrival.

¹ Floca 1937, 12; Ferenczi 1929, 216–217; Filimon 1940, 3–8; Popescu 1956, 119; Protase, D–Zrínyi A.–Dankanics A., *Raport preliminar asupra săpăturilor de la Cristești*, manuscript in the archive of MCM; Zrínyi 1977, 94, fig. XLV; Husar–Man 1996, 22–23.

² Pop 1994, 42.

³ The literature about the pottery kilns from the Roman provinces and also the ones *extra provinciam* is generous; therefore we would like to enumerate only the more popular and quoted works that regard situations closer to our discovery. Berciu 1949, 180–188; Protase–Dănilă 1965, 583–587; Petre 1968, 133–146; Popilian 1969, 167–169; Floca *et al.* 1970, 38; Mărghitan 1971, 531–535; Duhamel 1975, 12–20; Henning 1977, 190–193; Gudea 1978, 135–147; Cătinaș 1980, 81–84; Benea 1982, 22–40; Lipovan 1983, 301–312; Alicu 1984, 467–470; Le Ny 1988; Gudea 1989, 194–198; Mitrofan 1991, 173–200; Mitrofan 1993; Moga, 1996, 9–16; Mușețeanu 1996, 17–22; Matei 1997, 367–400; Popilian 1997, 7–21; Ardevan 2001, 319–329; Gaiu 2001, 161–198.

To recuperate as much stratigraphical information and as many elements of the kiln as possible, two surfaces were opened. The first one, C1 (6×6.14 m) was traced to determine the configuration of the above part of the kiln and the possible remains of the brick firing room or maybe the roof. Its orientation was the same as the one of the kiln, namely NE-SV. In the front of the kiln, a second surface, C2 was opened, with smaller dimensions (2.80×4.40 m), with the purpose of recovering remaining parts of the *prae-furnium*. In the south-eastern corner of C1, on the level belonging to the brick firing room, 5 tiles with tegular inscription ALA I BOSP (*Ala I Bosporanorum*) and some fragmentary Roman pottery were found – out of which the 5 tiles were positioned *in situ*.

The description of the kiln (Fig. 1)

The place chosen for the kiln to be constructed was the north-eastern slope of a hill, protected from the winds, to be able to control easier the atmosphere inside. The rectangular *hole* that was

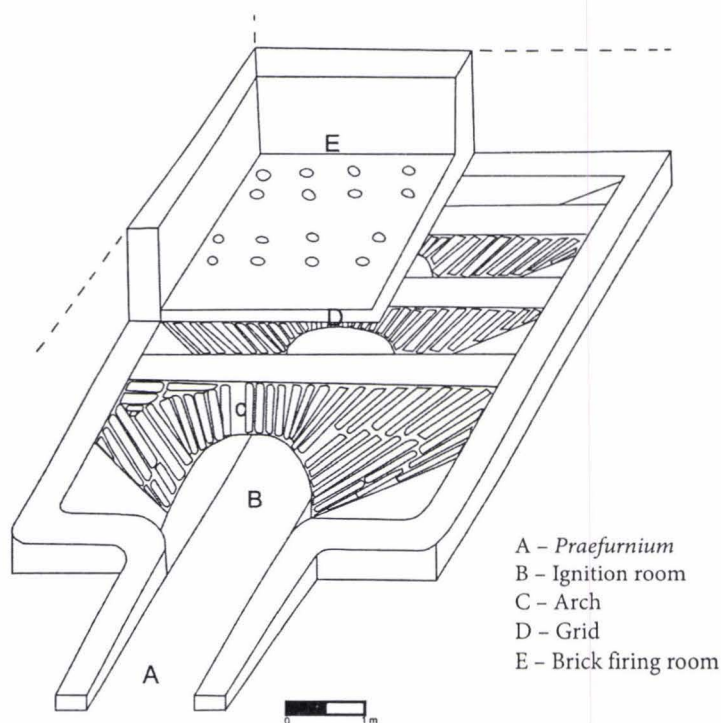


Fig. 1. The structural scheme of the kiln.

The walls of the *prae-furnium* (Pl. 1/4) were probably made in the same way as the ones of the kiln forming a vaulted structure and the floor was rounded downwards. The total length kept from this fore part is of 1.20 m, measured from the exterior wall (the remains) of the brick kiln. The upper part was not preserved. Several bricks were arranged horizontally at the mouth of the *prae-furnium*.

The *ignition room* was entirely built into the hole dug in the hill. Like the majority of the kilns discovered in Roman Dacia and not only, the grid that separated the ignition room from the brick firing room was sustained by arches. Between these (3 in number) there were the spaces that conducted the hot air towards the orifices of the grid and upwards, in the material room. The arches were made up of sun-dried bricks, bound with clay. The dimensions of the bricks differed (as related to their place in the structure of the arch): 32 to 78 cm long and 24 to 28 wide, with

dug in the sterile clay for the kiln to be built had 3.80×4.10 m. Additionally, it had a front extension for the *prae-furnium*, of cca 1.40×1.80 m, which broadened towards the end of it (we weren't able to determine the entire shape, since it no longer existed when we found the kiln). The shape of the *kiln* was rectangular, with exterior dimensions of 2.80×2.70 m (Pl. 1/3). A 40 cm to 1 m thick layer of brown clay was strongly settled between the margins of the hole and the walls of the kiln. The walls were built from a single layer of sun-dried bricks, 38 cm long, 18 to 20 cm wide and 8 cm thick. They were preserved up to 1.80 m in the highest point of the kiln remains.

a thickness of 8 to 10 cm. The arches became progressively narrower from the exterior to the interior. The first one (the one close to the *praefurnium*) had a height of 96 cm (measured from the floor of the ignition room) and an opening at its base of 98 cm. The following one was 1 m high and 70 cm wide at the base and the last one was 98 cm high and 52 cm wide. Consequently, the arches were built from radially laid bricks (Pl. 2/5) which provided the grid (together with the entire load it might have supported) with a very good sustainability. Inside the ignition room, the opening of the arches formed a central channel, 2.65 m long. From this channel, six others, three on each side, formed the interstitial air-conducting spaces, having each up to 40 cm width (Pl. 2/4). In the typology submitted by Le Ny, the corresponding type of air-conducting system is number 4,⁴ forming an oblique line that links directly the floor of the kiln to the walls.

In the order of the elements that shaped the ignition room, the first (from the front to the back) was an interstitial space, which corresponded at the grid level to the orifices that conducted the hot air, followed by an arch, corresponding at the same grid level to a line of bricks laid horizontally (Pl. 2/6) and so on, counting in all 4 interstitial spaces and 3 arches.

As mentioned above, the elements of this room were all made of sun-dried brick, bound with clay (successive strata of claying). The clay layer reached as much as 10 cm, and it was extremely slagged, due to the very high temperatures attained inside. The floor was also clayed and preserved many traces of charcoal. While emptying the ignition room, we came across two dark brown prints (in the soil) with a 9 cm diameter in each interstitial space from the back part of the kiln, which prove the existence of some supporting posts, horizontally set, two in each interstitial space (Pl. 2/3). They were set there during the building process of the installation and were only visible in the last channels of heat transmission, where the actual fire did not reach. Both posts were used to stand against soil pressure. Their importance is relevant, especially since the back wall remarkably curved towards the interior of the installation, precisely because of the earth pressure.

The grid (Fig. 2; Pl. 2/2) had 2.40×2.40 m, 40 orifices, grouped in pears, in 4 rows of 10 each. Every pear of orifices was made of one brick laid perpendicular to other two ones and at the same time parallel with the line of bricks that covered the arches. Thus, their original shape was a rectangular one, having average dimensions of 10×15 cm. On the three surfaces from above the arches bricks were laid horizontally. Unlike the arches, for which large sized bricks were used, the ones from the orifices and the ones from above the arches had up to 40 cm in length, 30 cm in width, and no more than 12 cm thickness.

The platform was clayed with several layers: the first one, applied after the bricks were laid (this layer had finger made grooves, to optimize the adherence of the subsequent layer), the second one was the one on which the first batch of bricks was laid

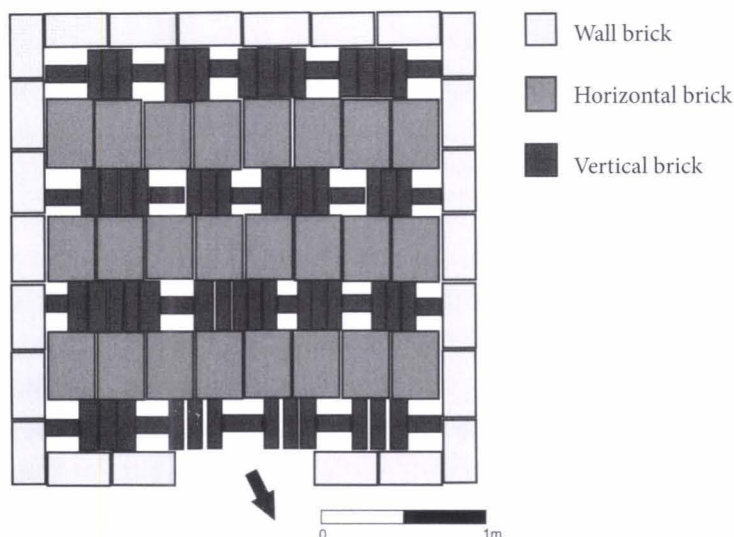


Fig. 2. The structure of the grid as seen from above.

⁴ Le Ny 1988, 55, fig. 33.

and the third one was a later adjustment. This latter one did not cover the entire surface of the grid; it needed to fill the cracks that appeared due to the usage of the kiln and the high temperatures reached inside. Because of these layers, the aspect of the heath transmission holes was round and not rectangular, with an average diameter of 12 cm. The existence of only one layer of restoration of the grid might lead to the conclusion that it was only used a few times. This fact is pretty much clear, since except for the parts lost because of the excavator, the general state of preservation is very good.

The brick firing room was preserved up to 76 cm. Its walls were the upward extension of the ignition room's walls. In the process of clearing the grid, we found pieces of the eastern wall crushed on the floor of this room.

Given the general features of the installation, we consider that it was destined to function for many batches of bricks. As it was constructed straight into the ground, the access in the brick firing room was made from the upper part. Probably the batch, after being stacked on the grid, was covered with a layer of clay and had holes or some kind of chimney, that permitted the air to ventilate the room. The batch was further more protected by a supplementary roof, as proved by the two post holes in the southern part of the kiln (up, on the hill slope), with a diameter of 10 cm, detected in the same archaeological layer.

In the same area tiles, pieces of gutter tiles and pottery were found (Pl. 2/1; 3/2). The pottery fragments belonged to red coloured common use vessels. Most of them are non-typical fragments, except from a fragment from to a medium sized bowl (rim diameter of 24 cm). It had a straight and rounded rim, curved walls and most probably annular bottom (this part is missing).

Best represented is the tegular material: 5 tile fragments with the ALA I BOSP (*Ala I Bosporanorum*) stamp, several unstamped ones and fragments of gutter tiles. A typology of these stamps has already been made by N. Gudea and A. Zrínyi⁵ and we can assign the ones we found to the IIIrd type (Pl. 3). Unfortunately, it does not provide us with enough pieces of information to help us date this discovery more precisely.

As it is widely acknowledged, the discovery of kilns – whether for producing construction materials or pottery with various functionalities – is the best proof that we are dealing with a pottery workshop. Whenever these kilns are in certain archaeological connection with other complexes waste pits for scraps, finished products, characteristic tools, etc. we can undoubtedly discuss about genuine workshops.

About pottery workshops and kilns discovered at Cristești, only few data and descriptions are kept from the authors of the previous researches. During the excavations made by A. Filimon and Al. Ferenczi five kilns were discovered (three circular and two rectangular). A rectangular kiln was discovered in 1972 by A. Zrínyi. All the data that we have prove the fact that the roman kilns from Cristești produced only pottery and this is the only brick kiln discovered up to now. Probably most workshops were concentrated in one area of the settlement (like in other settlements with similar findings),⁶ certainly close to the Mureș River. Also, archaeological discoveries from 2000, on the right bank of Mureș River, lead us to the hypothesis that the settlement had an extended workshops area and an inhabited area on that side of the river also.

⁵ Gudea-Zrínyi 1977, 223–232; Gudea-Zrínyi 1984, 51–58.

⁶ Protase-Dănilă 1965, 583–587; Floca *et al.* 1970, 14–16; Benea 1982, 22–40; Lipovan, 1984, 301–317; Mitrofan 1993, 36; Pop 1994, 42; Moga 1996, 9–19; Mușățeanu 1996, 17–22; Popilian 1997, 7–21; Ardevan 2001, 319–329.

On account of the significant quantities of building materials discovered in time, we can conclude beyond any doubt that there functioned a brickyard where they produced the necessary construction materials for the camp and the *vicus*.⁷

This kiln is placed outside the area of the settlement, on a hill located about 1 km away from the southern limit of the settlement. Interesting is that although the whole surrounding area was levelled, no other kilns were found, or other auxiliary equipment necessary to produce ceramics, such as pits and the waste materials. This singular occurrence is a rarity in the Roman world, especially since the kiln was build for long time operation.

Technically, the installation which is the subject of this study corresponds in the typology proposed by Françoise Le Ny to type IIE⁸ of rectangular shaped kilns, with the observation that in our case the dimensions are slightly smaller. This type is met in Roman Dacia at Ulpia Traiana Sarmizegetusa⁹ and Micia¹⁰ or in Dobrouja at Garvăn.¹¹ The appearance of stamped bricks certified once more that there used to be a roman camp at Cristești, still not located. No specific dating material was found so precise dating could not be established, but the discovery can undoubtedly be correlated with the Roman habitation level from the area, from the 2nd–3rd centuries AD. It must nevertheless be linked also with the presence of *Ala I Bosporanorum* in the vicinity, owed to the presence of the military stamps, but further details will be provided by future archaeological research in the area.

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⁷ Petolescu–Mărghită 1974, 247–258; Benea 1976, 205–214; Moga 1976, 191–196.

⁸ Le Ny 1988, 41 and also fig. 20b and fig. 23 b/IIE.

⁹ Floca 1942, 430–440.

¹⁰ Floca *et al.* 1970, kiln nr. 1, 17–22.

¹¹ Ștefan 1957, 339–344.

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Plate 1. 1. The location of the Roman settlement (1) and of the brick kiln (2);
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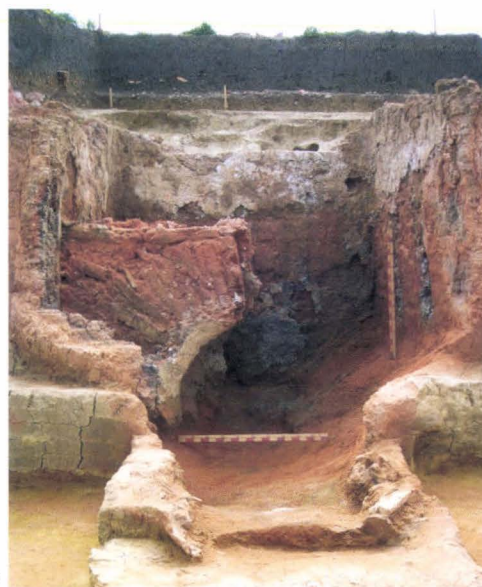
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Plate 2. 1. Roman tiles *in situ*; 2. The grid and the firing room; 3. Traces of the wooden posts in the earth that filled the kiln; 4. The ignition room: the arches; 5. Section through the elements of the kiln; 6. Traces of the arches in the lateral walls.

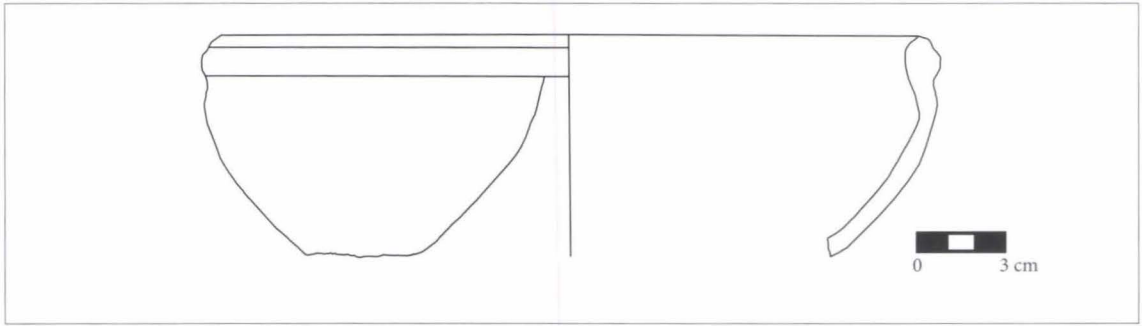
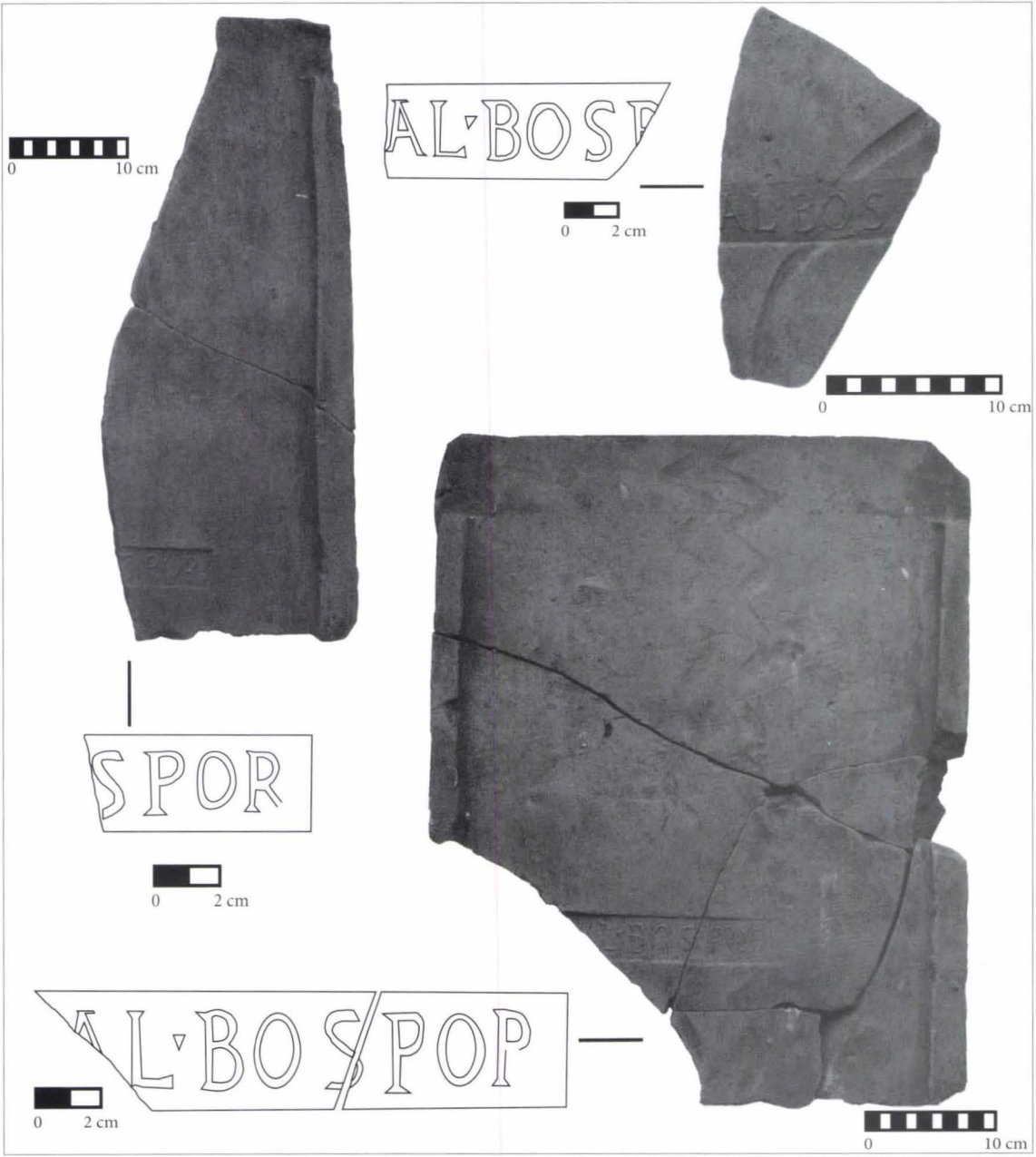


Plate 3. 1. Stamped tiles; 2. Bowl.
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ART AND RELIGIONS ON THE EASTERN PART OF DACIA (WITH SPECIAL REGARD TO THE UPPER MUREŞ AREA)

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Keywords: Dacia, deities, ceramics, patera, terracotta, statues

The art of Roman Dacia has a provincial, but well defined character. Elements of different origins determined both the content and form of artistic manifestations. Despite similarities, some common approaches and mutual influences, the art of each province had certain characteristics, determined by local factors and the models used, as well as by material possibilities of the inhabitants, or the influences of ethnic, religious and military life.

This observation is valid for the upper valley of the Mureş area, too, even if it was one of the most distant lands of the Empire, far away from the bright centre of the Roman culture. Aspects of cultural life are represented rich, with various and particular manifestations. Right because it was a far land at the periphery of the empire, where centres of culture are represented exclusively by rural settlements and *vicus militaris*, the Roman pantheon's presence was more important than in urban centres from central and southern provinces.

Besides the epigraphic pieces, the products of the Roman provincial art frame out a revealing image of the spiritual life. The statues and the funerary monuments – relevant to the taste and the possibilities of the inhabitants – occupy a considerable place. Thus, the statuaria is illustrated by some works of good artistic level: a limestone statue representing Jupiter on his throne (the iconographic type Jupiter *tronans* or *Verospi*),¹ the alabaster head of Juno² and a white marble torso.³

The stone statuettes – ex-votos with deity's image⁴ – are also well represented. In this category a fragmentary alabaster statuette representing Liber Pater (?) or Hercules Bibax can be found,⁵ together with a marble head of Liber Pater as Apollo Lyceios⁶ and a statuette of *genius loci*.⁷

There is no doubt that in the modest dwellings the little figurines of deities were made of burnt-clay, the local potters manufacturing numerous terracotta statuettes of the kind – Juno,

¹ Paulovics 1944, 86, fig. 22; Isac 1974, 76–77, pl. II/3a–b; Husar–Man 1996, pl. VI/1a–b.

² Floca 1937, 8–9; Zrínyi 1977, 98; Husar–Man 1996, 28, pl. VI/2.

³ Paulovics 1944, 87, fig. 23.

⁴ Concerning the deity-representation as cult-image see Bărbulescu 1984, 104–105.

⁵ Pop 1970, 152; Husar–Man 1996, pl. VI/5.

⁶ Husar–Man 1996, 28, pl. VI/4; determination owes to Al. Diaconescu.

⁷ Zrínyi 1977, 98, pl. L; Husar–Man 1996, 28, pl. VI/3.

Hygia, Silenus,⁸ etc. In the eastern part of Dacia, certain iconographic representations on burnt-clay moulds were also known. Thus, the mould of a votive tablet represents Liber Pater⁹ and another – in the shape of a medallion – the bust of Serapis.¹⁰ From the category of objects with artistic value the patera handles¹¹ and a ring with representation of Minerva¹² can be also mentioned.

If the statues of high artistic skill – the head of Juno, for instance – were imported products, the funerary monuments illustrate the activity of the local *lapicides* and of the itinerant artisans. From the religious point of view funerary monuments represent a special category, usually without any iconographic representations of deities. Only gods that have funeral meanings are mentioned occasionally: Gorgona Medusa, the protomes of the Winds and Attis, depicted as a fir cone.¹³

A special signification has an image representing the *Lupa Capitolina*,¹⁴ seen on two sepulchral monuments from Cristești and one from Brâncovenești. Such a representation – *signum originis* – has a clear social and cultural significance: the symbol of the Eternal City represented on the funerary monuments proves the pride of being a Roman citizen, of belonging to the Roman world.¹⁵ The image representing the *Lupa Capitolina* – the most significant products of Roman provincial art – shows that the Roman way of life and the Latin language imposed themselves in the rural environment of Dacia. From this point of view, the strong stimulus given to Romanization by the stable links, firstly economic but military and cultural as well, with the provinces of the Rhine and the Middle Danube and through these with Northern and Central Italy, must be noted. Finally, Attis,¹⁶ Gorgona Medusa, Thanatos and the protomes of the Winds¹⁷ – frequent appearances in the funeral symbols of the entire Roman world – complete the figurative repertory of the sepulchral monuments from this rural area.

Imagery gives clues as to how the gods were envisaged and worshipped. The production of a religious representation may serve several different purposes. If a stone monument which portrays a deity is placed in a temple, shrine or *locus consecratus*, it may possess a different function from one which comes from a domestic context or grave. Regarding the area of religious beliefs, the archaeological evidence is augmented by a vastly increased iconography. Thus, the sculptural monuments – cult-images or ex-votos – illustrate the picture of the religious life in this geographical area. On the other hand, images of the deities – Jupiter,¹⁸ Hercules¹⁹ and Amor²⁰ – also appear on ceramic products frequently used in daily life, as well as on the iconographic representations on moulds.

One can more or less clearly distinguish two categories of deities: those related to official Roman cults and those which, although apparently Roman, have not a truly Roman origin. When epigraphic documentation is lacking, it is quite difficult to attribute an ex-voto to this

⁸ Pop 1967, 178, nr. 11, fig. 11.

⁹ Pop 1972, 178.

¹⁰ Popa 1965, 231–232, fig. 1.

¹¹ Rusu-Bolindeț 1997, 325–388.

¹² Popescu 1956, 143, fig. 116/10.

¹³ Țeposu Marinescu 1982; Floca–Wolski 1973, 18–21, 35–36; Protase–Zrínyi 1994; Protase–Zrínyi 1992, 69–95.

¹⁴ Pop 1971, 173–185; Protase 1997.

¹⁵ Bărbulescu 1994, 159.

¹⁶ Țeposu Marinescu 1982, 202, nr. 18; 206, nr. 36.

¹⁷ Țeposu Marinescu 1982, 202, nr. 72, 73.

¹⁸ Isac 1974, 64, note 17.

¹⁹ Bărbulescu 1977, 186, nr. 64.

²⁰ Floca 1953, 770–771, fig. 11.

latter category. The majority of the deities attested at Cristești belong to the classical Greek-Roman pantheon: Jupiter, Juno, Mars, Minerva, Mercurius, Hercules, Liber Pater, Hygia, Amor and Silenus. The sphere of the personifications is also attested by a beautiful marble statuette representing *genius loci*.

The Mithraism is represented by an ex-voto marble discovered at Ozd and the vessels decorated with serpents discovered at Cristești and Sângeorgiu de Câmpie, which are supposed to have served in the Mithras' cult.²¹ The images of other deities such as Attis, Serapis and the 'Thracian horseman' illustrate the presence of the Asian (Asia Minor), Syrian, Egyptian and Thraco-Moesian beliefs. As one can observe, only the Celto-Germanic and the North-Western African cults are not represented.

The discovery of pottery stamped with crosses together with the palmetto motif²² could indicate the presence of Christians in the settlement from Cristești, but the fact remains, however, questionable. A cross motif appears on a fragmentary stamped pottery discovered in 2004 at Călugăreni, too.²³

The great number and diversity of beliefs which are attested by the different categories of iconographic representations, show two general specific features of the religious life in Roman Dacia.²⁴ In the upper Mureș area the Greco-Roman gods, including the first official divinities are the most numerous. Oriental divinities are also well represented, mostly dated from the 3rd century, when they became frequent through the whole Empire due to their mystical and esoteric character.

This study discusses in parallel the art and religious practices of this area, since the presence of gods and cults can be understood only by analyzing the artistic pieces, like inscriptions, funerary monuments, statues, figurines, terracotta, patera handles, objects which are bearing different iconographic representations.

Anthropomorphic pots

This type of vessels had a special role. Usually, half of the body represent a human figure in relief. This type of pottery fragments were found only in the Roman settlement of Cristești, where only the decorated part preserved. It represents a proportionate human face, with large and deep eyes, thick eyebrows, a Roman nose and opened mouth, without lips and a few teeth. The beard is also reproduced. On the whole, the human figure is grotesque. These pots were used in ritual manifestations. This vessel was made in a local workshop. Similar vessels were found in Dacia at Cumidava and Draja de Sus.²⁵ From Cristești two other pieces of vessels with anthropomorphic representations are known, one of them recreates a Venus *pudica*, schematically represented in relief, and on another vessel an eye with the iris and eyelids were kept.

²¹ Zrínyi 1967, 67–68, pl. XLVII/2–3. Vessels decorated with snakes were widely discussed by Bolindeț 1993, 123–141; for the general representation of Mithras see: Vermaseren 1960; Cumont 1989, 131–139; Campbell 1968.

²² Zrínyi 1977, 96, pl. LII/2; Rusu 1984, 59, nr. 27; Gudea-Ghiurco 1988, 197.

²³ Man 2006, 113–117, pl. II/3.

²⁴ Bărbulescu 1984, 180–183.

²⁵ Gudea-Pop 1971, 49; fig. 45; Ștefan 1947, 131–132, fig. 13/1–3.

Ceramic moulds ex-voto

Their presence denotes a diversified production of the ceramic centre from Cristești. The pieces made with these artefacts had certain religious requirements, and their analysis helps us to understand the religion of their users.

Two moulds have a medallion shape and they were used to make ceramic ex-voto or to decorate pottery. The first is fragmentary, reproducing the feet of a horse while the second is representing Serapis. Another fragment is rectangular, bordered by two handles and represents a mould votive plaque dedicated to Domina et Dominus, while another reproduces Liber Pater in an offering scene. This pattern has a shaped niche with a gable and a wide rim decorated with three buttons in the centre. The scene is bordered by two columns, in the centre with a nude Liber Pater, who keeps a massive *thirs* in the left hand and in the right a round object, probably a patera, which supports an altar. Similar representations are known in other centres of Dacia, as well.²⁶

The medallion with the representation of Serapis is worked in an elaborated technique, showing remarkable artistic skills. The god is depicted as a strong man, with the beard and the hair worked “in repousse” technique. He is wearing a *calathus*, a crown of laurels on the head, with a *lemniscus*, while the bust is covered by a chiton. This representation of Serapis is a general iconographic representation. Its rigid appearance lacking motion and the fixed look are specific features of Roman art, especially in religious representations, even if the Hellenistic or Greek models appear more dynamic. This kind of artistic representations generalized in the third century, when oriental influences began to play an important role in the religious manifestations of the communities. This piece may be dated in the second half of the 3rd century, when the cult of Serapis was highly spread in the Empire. Such representation is also known in Dacia at Apulum, Potaissa and Ulpia Traiana.²⁷ According to recent researches,²⁸ it seems that such large medallions were also used for ritual cakes, and only smaller medallions were used to decorate pottery.

Because of the negative text, the artefact was a sacred or votive pattern. An earlier interpretation of this mould is that it was dedicating to a goddess Domina and to a god with the epithet *propitius*.²⁹ Based on the analogies from the Empire, Sz. Pánczél offers a new interpretation of the text: *[Do]m(i)na et/ [Dom](i)nus prop(itii)*.³⁰ Thus, in the pantheon of Eastern Dacia two other deities appear: Dominus et Domina.

Vessels decorated with snakes

Although the role of these vessels is clearly religious, having a special purpose, because of their appearance they were interpreted, as common household utensils. A detailed analysis of their destination was made by V. Rusu-Bolindeț.³¹

Under the influence of the Greek religion the serpent appears as an attribute of gods like Demeter, Minerva, Apollo, Liber Pater, Bona Dea, Silvanus, Fortuna, Sabazios, Esculap or Hygia. In the Mithraism serpent together with the bull appears as a constant attribute. In Italy the snake

²⁶ Pop 1972, 178; Cociș 1987, nr. 2.

²⁷ Popa 1965, 231.

²⁸ Ruscu 1992, 125–134; Cociș–Ruscu 1994, 121–125.

²⁹ IDR, 3/4, 124, nr. 166.

³⁰ Pánczél 2010.

³¹ Bolindeț 1993, 123–143.

represents the protective genius of the people, families and individuals. Therefore the images of *lares* were often accompanied by one or two snakes.

The two vessels copying Greek craters that may be restored, subscribe to the unit series decorated with snakes. The rims of the vessels are everted, flattened and divided by three channels. Usually such vessels had three flat and channelled handles. Snakes are reproduced as a string of clay and the heads are suggested by simply flattening the string in a triangle-shape. Eyes are marked by dots and scales are shown by circles printed or indents made with a comb. The snakes from the body rise in the direction of the handles of vessels. Although, usually on the vessels discovered in Dacia on each handle appears one snake, at Cristești a handle shows three snakes. All these vessels are rich ornamented with many types of stamped, incised and applied decorations. In the eastern part of Dacia Superior, this kind of vessels were found at Cristești³² (one can be completed while from another six fragments were found, preserving the snake representations, too) and a fragment comes from the rural settlement of Sângeorgiu de Cămpie.³³ The pot decorated with snakes from Lechința de Mureș was used as a funerary urn and it was found together with a cup, a bowl and a silver fibula.³⁴ In the third century these vessels had a religious purpose, but in the fourth century were used also as a funeral urn.

Patera handles

The patera forms a separate category in the Roman ceramics. Their characteristics are given by their shape, decoration and functionality. Due to the shape and fragile handles, these were apparently used at libations, explaining the presence of the deities and their attributes on the flat handles.³⁵ Intact pieces are rare, but a large number of handles were discovered, which doesn't offer the possibility to specify the types and sizes of the vessels.

From the roman settlement of Cristești 14 patera handles were unearthed, some of them already mentioned by V. Rusu-Bolindeț.³⁶ Most of the pieces from Cristești are simple, flat and decorated in relief with stylized plant motifs. The vessels had rounded or straight edge and the handle started at the edge or from the body of the vessel. Diameter of patera ranges from 13.5 to 22.8 cm.

As ornamentation Minerva is the goddess with the most frequent and complex representation, reproduced on four handles. It appears in *majestas* hypostasis, accompanied by owl, snake and turtle, as specific attributes, as well as by two human *protomas*. The pieces were imitations after bronze patera handles or Roman statuettes.

Patera handles with stylized vegetal decoration are quite roughly executed, compared with the five pieces with representations of deities; although all were cast in moulds and they had the same paste and angoba. Pateras with the representation of plants can be related to the cult of Bacchus and his acolytes. These handles were made in the workshop from Cristești, proved by the same yellow paste and red angoba typical for other categories of pottery from the site.³⁷

³² Man 2003, 55–73.

³³ Cociș 1992, 556–557.

³⁴ Benninger 1938, 124–126; Zrínyi 1976, 140.

³⁵ Nuber 1972, 1–233; Radnóti 1938; Tassinari 1970, 127–164; Vertet 1972, 5–45.

³⁶ Rusu-Bolindeț 1997, 325–388.

³⁷ Man 2003, 55–73.

Generally, handles are of good quality and artistic execution, particularly the flat one decorated with deities. But, the imagination and originality of the potters were materialized in the case of simple decoration, like stylized plant motifs, too. The handles from Cristești show typological similarities to the other handles from Dacia, evidencing the circulation of patterns inside Dacia and the Empire, as well.

The analyzed material can be generally dated to the second and third centuries, since the pieces were discovered by A. Filimon, without any stratigraphical indications. A more precise dating is possible only based on the chronology and typology made by V. Rusu-Bolindeț. Such flat handles with curved sides and straight edge date from the first half of the second century, but in Dacia these were produced throughout the Roman domination.³⁸ The pieces decorated with deities were dated by O. Floca to the mid-third century.³⁹

The terracotta figurines

Though without special artistic qualities, these objects give us clues about religious and ethnic background of the communities. They are specific products of the provincial art, roughly executed comparing to major works of the Greco-Roman workshops. They were made by casting moulds. To facilitate the combustion process, the figurines had a hole at the bottom. As other terracotta figures from Empire, the Dacian ones are also series products and do not represent a particular artistic value. The material and simple techniques, combined with the introduction of new form besides imitating the widely used ones, determined the variety of clay figurines. Statuettes with the same representation have many elements in common; even they were not cast in identical patterns. Among the terracotta figurines Venus is the most represented.

It was hypothesized a worship on large scales of the goddess Venus, practiced especially in camps from Dacia, hypothesis partly justified by the discovery of such terracotta with predilection in the camps. Among the analogies for pieces from Cristești the ones from Buciumi,⁴⁰ Apulum and Napoca⁴¹ can be mentioned, while for the representations of Silenus the best analogy is known from Partoș.⁴²

Representations in stone

Statuaria is illustrated by some works of good artistic level: a limestone statue representing Jupiter on his throne (the iconographic type Jupiter *tronans* or *Verospi*),⁴³ the alabaster head of Iuno,⁴⁴ a fragmentary statue of alabaster of Liber Pater or Hercules Bibax,⁴⁵ Liber Pater's marble head⁴⁶ and the statue of a *genius*.⁴⁷ It has to be mentioned as an outstanding fact, that

³⁸ Rusu-Bolindeț 1997, 355.

³⁹ Floca 1953, 755–772.

⁴⁰ Chirilă *et al.* 1972, pl. CXXX; CXXXI/2.

⁴¹ Țeposu-David 1964, 473–476, fig. 7.

⁴² Pop 1967, 178, nr. 11, fig. 11.

⁴³ Paulovics, 1944, 86, fig. 22; Isac 1974, 76–77, pl. II/3a–b; Husar–Man 1996, pl. VI/1a–b.

⁴⁴ Floca 1937, 8–9; Zrínyi 1977, 98; Husar–Man 1996, 28, pl. VI/2.

⁴⁵ Pop 1970, 152; Husar–Man 1996, pl. VI/5.

⁴⁶ Husar–Man 1996, 28, pl. VI/4.

⁴⁷ Zrínyi 1977, 98, pl. L; Husar–Man 1996, 28, pl. VI/3.

the mithraic bas-relief discovered at Ozd comes from a rural settlement. If the statues of high artistic skill – like the head of Juno – were imported products,⁴⁸ the other monuments illustrate the activity of the local *lapicides* and itinerant artisans.

The defining element of the sculptures is their reproductive character required by the canons of classical art. Thus, the type of statue depicting Jupiter on the throne reproduces Phidias'⁴⁹ famous monument. The same applies to the representation of Hercules,⁵⁰ Liber or Iunona.

In classical Roman religion a *genius loci* was the protective spirit of a certain place. It was often depicted in religions iconography as a figure holding a cornucopia, patera or a snake. There are many Roman altars found in Western Europe entirely or partially dedicated to particular *genius loci*. The Roman imperial cults of the Emperor and the imperial house are in part derived from the neighbourhood associations.

Not the same can be said about the genius of marble, bearing a *modius* and combed hair in spirals, betraying an oriental manner.⁵¹ Moreover, tests made on samples proved the origin of this piece of marble from Marmara or Usak centres of Asia Minor. Perhaps the piece was made in that area and imported into Dacia.⁵² According to that study, it appears that local marble was used for architectural monuments, buildings and inscriptions. Artistic products and small votive artefacts were usually imported. Transportation of these sculptures from a considerable distance obviously had religious reasons.

Representations in bronze

The only representations in bronze are the two statues representing the goddesses Venus and Fortuna⁵³ and a bronze appliqué depicting Jupiter.⁵⁴ The pieces were donated to the National History Museum of Transylvania from Cluj Napoca by Domokos Teleki, who collected his antiques from the upper Mureş area. The piece is furniture or a vessel's appliqué and was dated by C. Pop⁵⁵ in the second century, in the full period of prosperity of the Antoninians. It is an import product, made in a workshop from the central provinces of the Empire and probably it was brought in Eastern Dacia by soldiers or traders.

⁴⁸ Zrínyi 1977, 98.

⁴⁹ Isac 1974, 76.

⁵⁰ Pop 1970, 150.

⁵¹ Zrínyi 1977, 98.

⁵² Muller *et al.* 1997, 437, 451.

⁵³ Pop 1980, 699–700, pl. XXXIII, XXXIV.

⁵⁴ RR 1969, 193; Civiltà 1970, 199–200; Pop 1979, 645–646, pl. CXXXII.

⁵⁵ Pop 1979, 645–646, pl. CXXXII.

APPENDIX

Repertory of representation on ceramics⁵⁶*Anthropomorphic pots*

1. Anthropomorphic vessel; yellow-brick paste; brick glossy angoba; fragment, the upper part of the vessel was decorated by a representation of a proportional but grotesque human face with large and deep eyes, thick eyebrows, Roman nose and opened mouth, without lips and a few teeth and beard; Pl. 1/7. Dim: H = 10.5 cm, l = 13 cm; Dp. Cristești, vicus militaris; Dd: MCM; inv. 1213; unpublished.

2. Bowl; fragment; brick paste; brick angoba with traces of paint; decorated with a representation of Venus; poorly preserved; Pl. 3/11. Dim: H = 10.5 cm; l = 4.2 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 1809; unpublished.

3. Bowl; fragment; yellow paste; brick angoba; decorated with an eye: eyelids and iris have been reproduced; Pl. 3/6. Dim: H = 3 cm; l = 4 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 1213; unpublished.

4. Anthropomorphic vessel, yellow-brick paste; fragment; with the bust of a man with a girdle around the neck, ornamented with impressed circles; the face is schematically shown, the eyes are marked by two circles and the mouth is represented by a hole. The character wears a diadem of rays. Perhaps it represents the Sol; Pl. 1/8. Dim: 9.4 x 3.8 cm. Dp: Sângeorgiu de Câmpie, rural settlement; Dd: MCM; inv. FN; Cociș 1992, 557–558.

Ceramic moulds ex-voto

1. Medallion-shaped; yellow paste; fragment; a part of the feet of a quadruped animal is preserved, with traces of grass and earth; Pl. 3/9. Dim: D = 9 cm; l = 5.5 cm, H = 3.3 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 572; unpublished; analogies: Popilian 1976, fig. 302, pl. XXX.

2. Medallion-shaped; brick paste; brown angoba; good preservation; representing the bust of Serapis; worked in an elaborated technique, showing remarkable artistic skills. The god is depicted as a strong man, with the beard and the hair worked “in repousse” technique. He is wearing a *calathus*, a crown of laurels on the head, with a *lemniscus*, while the bust is covered by a chiton; Pl. 2/4. Dim: D = 11.8 cm; Dp: Crăciunești, rural settlement; Dd: MCM; inv. 551; Floca 1937, 9, nr.3; Zrínyi 1977, pl. XLX/3; Husar–Man 1996, pl. III, fig. 6.

3. Medallion-shaped; brown paste; fragment; the top is missing; the medallion represents an owl (attribute of the goddess Minerva), surrounded by a wreath; Pl. 2/5. Dim: 5 x 2.8 x 1 cm; Dp: Sângeorgiu de Câmpie, rural settlement; Dd: MCM; inv. FN; Cociș 1992, 557–558.

4. Mould; rectangular handles; brown paste; fragmentary; the text is negative; Pl. 2/2. Dim: L = 13 cm, l = 9 cm, H = 3 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 548; Floca 1937, 11, nr. 8.

.....] INAET

.....] NVS PROP (itii)

[Do] m(i)na et/ [Dom](i)nus prop(itii)

5. Mould; in form of a pediment niches; brown paste; fragmentary; reproducing a Dionysian scene with Liber Pater; this piece has a shaped niche with a gable and a wide rim decorated with three buttons in the centre. The scene is bordered by two columns, with a nude Liber Pater in the centre, who keeps a massive *thirs* in the left hand and in the right hand a round object, probably a *patera*, which supports an altar; Pl. 2/3. Dim: L = 10 cm, l=7.8 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 550; Floca 1937, 9, nr. 4.

6. *Sigilla*; bricks paste; almost rectangular shape, one side fragmentary, showing a fighter or a deity sitting, with his right hand leaning on the edge of a column; Pl. 3/12. Dim: H = 7 cm; l = 4.3 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 565; unpublished.

⁵⁶ The description has the following clusters: current number; the name of the piece; the preservation stage; the detailed description of the material; the illustration; dimensions (L-length, D-diameter; l-width; H-height); the dating according to the archaeological context or analogies; Dp.: the discovery place; Pp.: the preservation place and the inventory number; the bibliography.

Vessels decorated with snakes

1. Pot; red paste; red angoba; fragment; a portion of the body and the rim preserved as well as two of the three handles. The rim is straight, horizontal, flat, marked by two channels. Starting from the body of the vessel from the left part of each handle a snake was applied, with the head reaching the rim. Scales are shown by stamped circles and eyes are marked by circles with diameter of 5 mm. Handles are decorated on both edges with one row of circles with 5 mm in diameter. The same circles can be found on the edge of the rim and neck of the pot. Under the rim, between two of the handles a bull's head is applied; Pl. 2/1. Dim: D = 22 cm; H = 40 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 4880; Zrínyi 1967, 67; Bolindeț, 1993, 126–127.

Patera handles

1. Patera handle; yellow brick paste; poorly preserved angoba; a part of the rim and the body of the vessel preserved, decorated in relief with stylized lightning; Pl. 4/1. Dim: L = 9 cm, l = 4 cm, D = 14.3 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 1298; Floca 1937, 14, nr. 2; Man 2003, 61, nr. 5.

2. Patera handle; yellow brick paste; poorly preserved angoba; a part of the rim and the body of the vessel preserved, decorated with stylized vegetal motifs in relief; Pl. 4/2. Dim: L = 10.5 cm, l = 3 cm, D = 22.8 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 1726; Man 2003, 61, nr. 4.

3. Patera handle; yellow paste; poorly preserved angoba; fragments; decorated with parallel lines in relief; Pl. 4/3. Dim: L = 4 cm, l = 3 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 1305; Man 2003, 61, nr. 6.

4. Patera handle; yellow paste; poorly preserved angoba; fragments; decorated with stylized vegetal motifs in relief; Pl. 4/4. Dim: L = 3 cm, l = 5 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 1305; Man 2003, 61, nr. 7.

5. Patera handle; yellow paste; poorly preserved angoba; decorated with stylized vegetal and geometrical motifs in relief; Pl. 4/5. Dim: L = 10 cm, l = 5.5 cm, D = 18 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 1297; Man 2003, 61, nr. 8.

6. Patera handle; yellow brick paste; poorly preserved angoba; a part of the rim and the body of the vessel preserved, decorated with stylized vegetal motifs in relief; Pl. 4/6. Dim: Lt = 5.5 cm, l = 3 cm, D = 18.5 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 1299; Man 2003, p. 61, nr. 9.

7. Patera handle; brick paste; reddish angoba on both sides; good preservation; handles are asymmetrically placed on the body, decorated from top to bottom with a turtle or a star, two protomes of the Winds; Minerva in the Majestas hypostasis with an owl, a snake and an altar in the centre; Pl. 4/7. Dim: L = 14 cm, l = 5.5 cm; Dp: Cristești, vicus militaris; Dd: MNIT; inv. 698; Rusu-Bolindeț 1997, nr. 51; Man 2003, 61, nr. 10.

8. Patera handle; yellow paste; dark brick angoba; fragment; a part of a rim preserved; the decoration keeps the inferior part of the goddess Athena, wearing chiton, with the left hand on the spear; at her legs, at left is a serpent, at right a turtle and in the centre an altar from which smoke rises, and a fish or a lizard. The shoulders of the handle are marked by two rosettes; Pl. 4/8. Dim: L = 7 cm, l = 8.5 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 1303; Rusu-Bolindeț 1997, nr. 52, pl. XII/3; Man 2003, 61, nr. 11.

9. Patera handle; dairy brick; glossy red angoba; fragment; the goddess Athena's body has been preserved from the neck down. She is dressed in a chiton and has a contoured chest. The right hand is resting on the right leg. The left hand is not shown, but probably she held the lance. At her feet are the turtle in the right and the snake at the left; Pl. 4/9. Dim: L = 7.5 cm, l = 3 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 1302; Floca 1953, 769–770, fig. 14; Rusu-Bolindeț 1997, nr. 53, pl. XII/2; Man 2003, 62, nr. 12.

10. Patera handle; dairy brick; glossy red angoba; fragment; decorated with two swans with bent necks, under the swan's head a trilobite rosette was incised. In the centre a nude Cupid is reproduced. The right hand seems to hold a cornucopia and in her left hand he holds the bow (?); Pl. 4/10. Dim: L = 8 cm, l = 5.7 cm, l = 3 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 1300; Floca 1953, 770–771, fig. 14; Rusu-Bolindeț 1997, nr. 60, pl. XII/4; Man 2003, 62, nr. 13.

11. Patera handle; dairy brick; glossy red angoba; fragment; the decor and size appear to be identical with No. 7, two *protomas* and the head of goddess Minerva are preserved; Pl. 4/11. Dim: L = 4 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 1331; Man 2003, 62, nr. 14.

Terracotta

1. Statuette; red paste; fragmentary, the head and the hands are partially missing; it represents a goddess with a long dress and without pleats, with breasts; the piece is roughly executed, without respecting the proportions of the body, the arms are very thick; Pl. 1/2. Dim: H = 12 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 570; unpublished.

2. Statuette; red paste; fragmented, the upper part of the body is missing, the lower part of the body is nude, partially covered with a cloak, the piece is well executed, the body rests on one leg and placed on a square pedestal. The statue depicts Aesculap, accompanied by his symbol, the snake; Pl. 1/1. Dim: H = 13 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 6927; unpublished.

3. Vessel with human figure or statuette; red paste, represents a typical negroid figure, with the hair up over his head, straight forehead, flat nose with large nostrils and thick lips; Pl. 1/4. Dim: H = 7 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 564; unpublished.

4. Statuette; red paste; piece; the head and half bust are preserved; the goddess is probably Hygia with a veil on her head and with his right hand take a patera; roughly executed, with hardly distinguishable face representation; Pl. 1/6. Dim: H = 8 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 569; unpublished.

5. Statuette; brick red paste; the fragment is the head of a horse, fine work, one ear is missing; Pl. 1/3. Dim: L = 9 cm; l = 6 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 6929, unpublished.

6. Statuette; red paste; fragment; only the head representing the old Silenus was kept, with wrinkled face, big eyes, bushy eyebrows, flattened nose, closed mouth and long beard. The head is almost devoid of hair, the strands are intertwined on the neck. Above the forehead a tiara is adorned with three buttons; Pl. 1/5. Dim: h = 5.7 cm; l = 4.3 cm; Dp: Cristești, vicus militaris; MCM; inv. 568; Pop 1967, 178, fig. 12.

7. Fragment statuette; red paste; is a part of a *palla* with oblique folds; Pl. 3/1; Dim: H = 7 cm; l = 2.5 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 1757(553), unpublished.

8. Fragment statuette; red paste; representing an animal, probably a lion, retained one side with half of the back leg and part of the ridge; Pl. 3/2. Dim: H = 4 cm; l = 6.7 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 553; unpublished.

9. Statuette; yellow paste; fragmentary; it lacks the head, hands and legs, the statuette represents the nude Venus, with well shaped breasts and lower part of the body covered with a garment that she takes with the left hand; Pl. 3/3. Dim: H = 8 cm; l = 2.5 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. FN; unpublished.

10. Statuette; yellowish paste; fragmentary; only the head preserved, representing Venus wearing a tiara on her head, without mouth; Pl. 3/4. Dim: H = 3.3 cm; l = 2 cm; Dp: Brâncovenești, vicus militaris; Dd: MCM; inv. FN; archaeological research Brâncovenești 2007; unpublished.

11. Fragmentary statuette; yellowish paste; red angoba; the bottom of the folds of a garment is preserved; Pl. 3/5. Dim: H = 5 cm; l = 3.7 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 4067; unpublished.

12. Fragment statuette; yellowish paste; red angoba; reproducing some of the folds of a *palla*, decorated with a floral motifs; Pl. 3/7. Dim: H = 6.4 cm; l = 4.8 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 1801; unpublished.

13. Fragmentary statue; yellowish paste; traces of brown paint; keeping some folds of a garment. Dim: H = 3.3 cm; l = 4.3 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. FN; unpublished; Pl. 3/8.

14. Fragmentary statue; yellowish paste; keeping some folds of a garment; Pl. 3/10. Dim: H = 6 cm; l = 4 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 549; unpublished.

Representations in stone

1. Statue; limestone; conservation status: fragmentary, but the stone is well preserved, the head arms and bottom of the monument is missing. The statue is harmonious and well proportioned. Jupiter is

represented in Jupiter *tronans* hypostasis. The throne is without ornaments, but well executed, including the back and the throne is under mounting hole. Although only the god's bust is kept, it is neatly worked and well proportioned. His legs are covered with folds of a robe. The only attribute that keeps, is an eagle sitting at the feet of god. Wings are open for flying and feathers are carved in the form of large scale, good relief; Pl. 5/1. Dim: 60 x 44 x 35 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 5; Paulovics, 1944, 86, fig. 22; Isac 1974, 76–77, pl. II/3a–b; Husar–Man 1996, pl. VI. Dating: 2nd century.

2. Votive statuette's head, made of alabaster, well preserved, showing a superb head of the goddess Junona. Her combed hair separated in the middle is caught in a bun at the nape, two side curls falling over the neck. She wears a semicircular diadem, decorated with vertical channel. The statuette is an import; Pl. 6/6. Dim: H = 13.5 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 554; Floca 1937, 8–9; Zrínyi 1977, 98; Husar–Man 1996, 28, pl. VI/2; Dating: 2nd century.

3. Statuette; alabaster; fragmentary; representing a young, nude, upstanding person (Liber Pater), with broken head and legs. The right arm is bent back and keeps a round vessel with a wide mouth – probably a patera – in his left hand. The left elbow is resting on a tree trunk. Evidenced by the asymmetrical fragmentation, the piece apparently was part of a sculptural group. The execution of the monument is mediocre, the bust and hips are smooth, without other anatomical elements; Pl. 6/4. Dim: H = 26.3 cm; l = 14.8 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 2933; Pop 1970, 152; Husar–Man 1996, pl. VI/5; Dating: 2nd–3rd century.

4. Votive statuette's head; made of marble; only the head is preserved; it presents Liber Pater in Lyceios hypostasis; with facial features and curly hair symmetrically executed. The piece has an outstanding artistic value; Pl. 6/5. Dim: H = 8.5 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. 4303; Husar–Man 1996, 28, pl. VI/4; Dating: 2nd–3rd century.

5. Marble statue represents *genius loci*. On his head he wears a *modius*, his curly hair hangs on his shoulders. The eyes and nose are stark and the mouth only be charged instead. The arms are missing; the chest is uncovered, showing well-drawn anatomical details. The bottom is covered by a mantle until the ankles and by the left shoulder hangs a corner. Near his left foot a miniature boat with a weak female character was preserved. The statue comes from Asia Minor; Pl. 6/3. Analogies: Saalburg and Philippeville, in Reinach 1910, III, pl. 14/9; 14/6. Dim: H = 70 cm; l base = 27 cm; Dp: Cristești, vicus militaris; Dd: MCM; inv. FN; Zrínyi 1977, 98, pl. L; Husar–Man 1996, 28, pl. VI/3; Dating: 3rd century.

6. Mithraic relief; represents the mithraic sacrifice scene of Mithras the taurocton, carved in a rectangular marble plate. Three corners are broken. The plate is bordered by a shaped rim, 1.7 cm wide and the bottom has a width of 5.8 cm. The bull killing scene is typical; the animal is killed after a series of scenes similarly reproduced everywhere in the Empire. The bull is on the ground and Mithras kneeling on it sticks a knife into the neck of the animal. The god is wearing Persian clothes, with mantle waving back and his head is covered with a *modium*. A snake is crawling under the bull and rises his head to the wound. On the right of the bull a jumping dog is seen. Tauroctonic scene is framed by two acolytes of the god, Cautopates and Cautes, both with a torch, symbolizing the sunrise and sunset. On the top corners of the bas-relief (in the missing part) were probably grouped the sun and moon; Pl. 5/2. On the wider rim of the bottom of the votive relief is the inscription: EX VOTO. PO. (SVIT) VICTO(RINVS); Dim: 46 x 31 x 3.2 cm; Dp: Ozd, rural settlement; Dd: MCM; inv. 4875; Zrínyi 1967, 66–68; Dating: 3rd century.

Representations in bronze

1. Roman bronze apply depicting Jupiter, it was worked in lost wax technique. Jupiter is depicted in a calm and majestic position, attitude well known in the representations of the Greco-Roman art. The figure has big eyes, with pupils marked by collared stones and enamels, now lost, thick eyebrows and cheeks enough relief, small mouth, moustache and bushy beard, strong neck, chest healthy. The head bears a crown of oak leaves in two lines, the characteristic element for the lord of the god. Forehead hair is long and curly with fine radial incisions. In the lower part of the figure a few laurel leaves can be seen. Regarding the floral ornament, it finds analogies in the Roman art at Rust, Trier as well as in Dacia; Pl. 6/7. Dim: H = 8 cm, l = 7 cm; DP: Mureș County; Dd: NHMT; inv. IV, 1910; Pop 1979, 645–646; analogies: Fleischer 1967, 161–162; Menzel 1966, 71, nr. 170; Pop–Matei 1978, 81, pl. III/11; Dating: 2nd century.

2. Bronze statuette representing the nude goddess Venus, with her left hand hiding her basin, and the right hand is stretched in front. Her hair is long, separated in the middle, falling on the shoulders in two strands, pinned at the back into a small bun, and she is wearing a tiara on her head. The statuette is quite neatly executed, characteristic for the Antoninian period, but some details remember the superficiality of the 3rd century; Pl. 6/8. Dim: H = 13 cm, l = 4.2 cm; DP: Mureș County; Dd: NHMT; inv. IV, 1908; Pop 1980, 699–700; Dating: the second half of the 2nd century.

3. The statuette has the right forearm, left foot and lower part of cornucopia broken. The divinity wears a long chiton with vertical folds, on the right shoulder the chiton is hooked by a fibula. She is wearing a tiara on her head. In the left hand, the goddess holds a cornucopia and in the right hand (which is broken) holds a patera or the helm; Pl. 6/9. Dim: H = 6.8 cm, l = 2.9 cm; DP: Mureș County; Dd: NHMT; inv. IV, 1909; Pop 1980, 699–700; Dating: the second half of the 2nd century–3rd century.

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Plate 1. 1–6. terracotta; 7–8. anthropomorphic pots.



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Plate 2. 1. pot decorated with snakes; 2–5. ceramic moulds.
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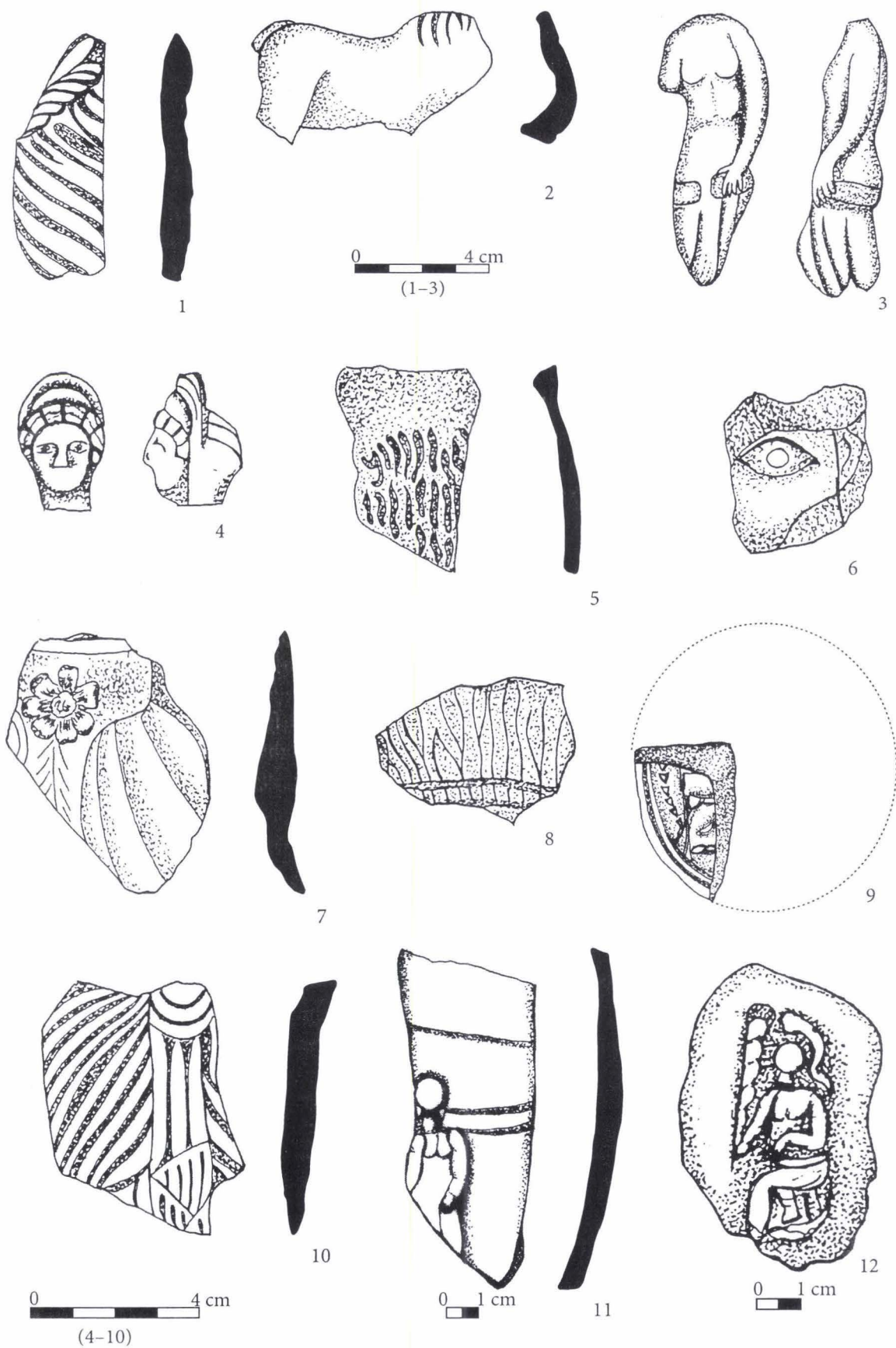
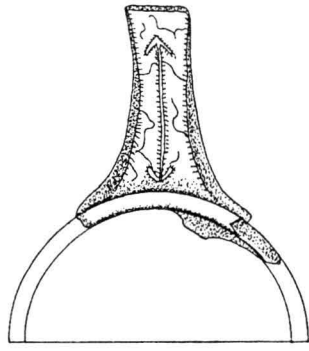


Plate 3. 1-16. terracotta; 6-11. anthropomorphic pots; 9-12. moulds.



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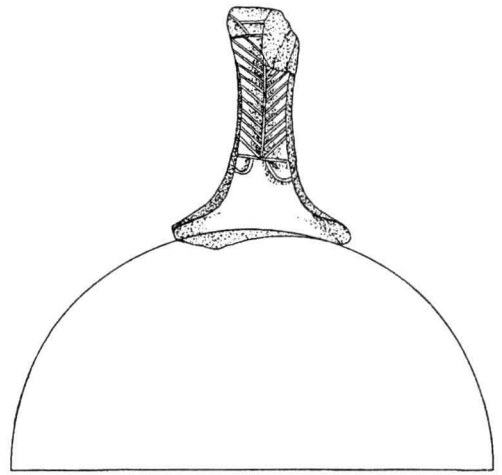
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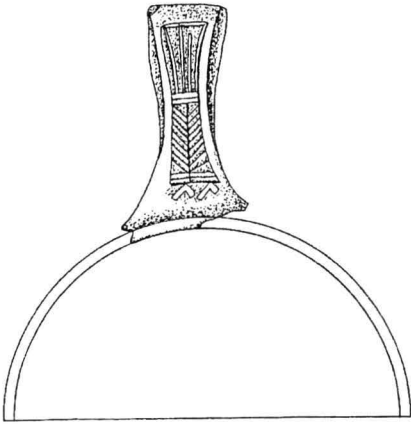
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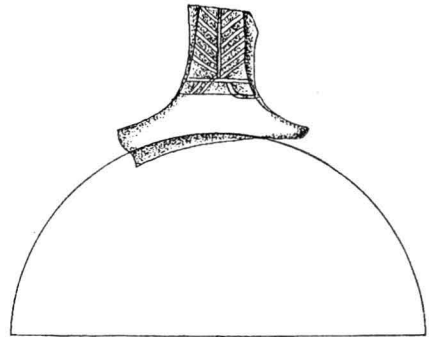
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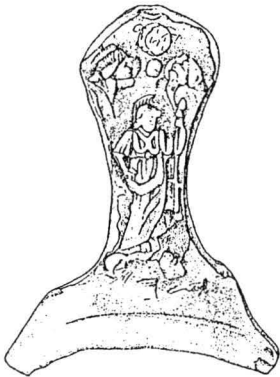
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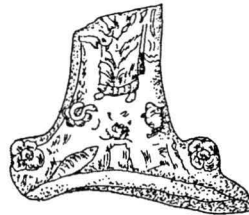
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(9-11)

Plate 4. Patera handles.



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Plate 5. Stone representations: 1. Jupiter *tronans*; 2. Mithraic ex-voto.



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Plate 6. 1–6. Stone representations: 3. *Genius loci*; 4–5. *Liber Pater*; 6. *Junona*.
7–9. Representations in bronze: 7. *Jupiter*; 8. *Venus*; 9. *Minerva*.

FORSCHUNGEN IM KASTELL VON POROLISSUM. BERICHT ZUR KAMPAGNE 2009

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Schlüsselwörter: Porolissum, Dakien, Militärlager, Ausgrabungen, Geophysik, 3D Visualisierung, Restaurierung¹

Seit Sommer 2009 findet im römischen Kastell auf dem Berg Pomet in Porolissum (Abb. 1), am Nordwestabschnitt des Dakischen *Limes* gelegen, ein von fünf Universitäten durchgeführtes Feldforschungsprojekt statt.² Zwei Arbeitsschwerpunkte sind miteinander vereint: Aufgrund vorhandener Pläne von bisherigen Ausgrabungen sowie Luftbildern, geodätischer Daten und geophysikalischer Prospektionen werden aktualisierte Pläne erstellt, die in einem 3-dimensionalen Geländemodell zusammengefasst werden und somit alle anthropogenen Eingriffe sowie sichtbare Strukturen in ihrem Zusammenhang visualisieren. Zudem wird im Zentrum des Kastells, westlich der *principia*, ein unterirdisches Gebäude hinsichtlich seiner Funktion, Bauphasen und Nutzungszeiträume untersucht.

Dakien wurde zu Beginn des 2. Jahrhunderts unter Trajan erobert und blieb bis in die 270er Jahre Teil des Römischen Reiches.³ Als wichtiger Truppenstützpunkt im Verteidigungssystem

¹ Eine Variante dieses Aufsatzes wird auch im Mitteilungsblatt der Archäologischen Institute der Universitäten zu Köln und Bonn (Bd. 1, 2010) publiziert.

² Beteiligte Institutionen: Lehrstuhl für Alte Geschichte und Archäologie der Babeş-Bolyai Universität Cluj-Napoca, Winckelmann-Institut der Humboldt-Universität zu Berlin, Archäologisches Institut der Universität zu Köln, Fakultät für Architektur der Budapest University of Technology and Economics, Lehrstuhl für Geophysik und Weltraumforschung des Eötvös Lóránd University Budapest, Fachbereich Konservierung und Restaurierung der Fachhochschule Erfurt. Das Projekt wird innerhalb eines Erasmus-Intensivprogramms gefördert und als internationale Lehrgrabung mit Studierenden der beteiligten Institutionen durchgeführt.

³ Gudea-Lobüsch 2006, 17–20; 96–97.



Abb. 1. Porolissum am Dakischen Limes (Sz. Pánczél).

der Nordwestgrenze des Römischen Reiches war Porolissum eines der bedeutendsten Zentren in Dakien (Abb. 2).⁴ Das auf einer Bergkuppe errichtete Militärlager sicherte den *Limes*abschnitt und kontrollierte mit einer angegliederten Zollstation einen der wenigen natürlichen Passwege zwischen dem innerkarpatisch-siebenbürgischen Hochland und der westlichen Tiefebene, zwischen besetztem und unbesetztem Gebiet. Eine Zivilsiedlung unterhalb des Auxiliarkastells wurde zum Teil unter Septimius Severus zum *municipium* erhoben.⁵ Inschriften belegen, dass die Bevölkerung dieser prosperierenden Siedlung ethnisch

und sozial heterogen war⁶ – entsprechend vielfältig war auch der religiöse Hintergrund der Bewohner.⁷

Das Gelände ist heute nicht überbaut, wodurch ideale Forschungsbedingungen geboten sind. In den 30er bis 50er Jahren des 20. Jahrhunderts konnten die *principia* im Zentrum des Kastells und Teile der Lagerumwehrung, der Toranlagen und der Türme erforscht werden.⁸ Zur Klärung der Binnenstruktur legte N. Gudea zwischen 1977 und 1989 fast einhundert Suchschnitte durch das Lager und seine Befestigung;⁹ hierauf basiert der publizierte Plan (Abb. 3).

Vor Beginn der neuen Grabungen wurden auf dieser Grundlage sowie Luftbildern, topographischer Karten und Geländebeobachtungen in ausgewählten Bereichen geodätische und geophysikalische¹⁰ Messungen vorgenommen, die als Datenbasis zur Erstellung eines Geländemodells dienten. Um die komplexen Zusammenhänge der antiken Strukturen im Gelände zu verdeutlichen, wurde eine Methode verfolgt, die alle bisherigen Ergebnisse um die dritte Dimension erweitert (Taf. 1). Die in die Rekonstruktion überführten Befunde wirken dabei

⁴ Zur militärischen Bedeutung von Porolissum siehe Gudea 1997a, 7–10.

⁵ Ardevan 1998, 67.

⁶ Paki 1988, 223–225; Tamba 2008, 75–76.

⁷ Gudea 2003, 240; Gudea–Tamba 2005, 472–473; Tamba 2008, 49–51.

⁸ Über die Ausgrabungen von 1939–1940 (unter der Leitung von C. Daicoviciu, M. Moga, L. Ghergariu), 1943 (unter der Leitung von A. Radnóti), 1949 (unter der Leitung von M. Moga) und 1958–1959 (unter der Leitung von M. Macrea) siehe vor allem Tóth 1978; Gudea 1989b, 35–37; Gudea 1997a, 16–17.

⁹ Gudea 1997a, 17–18.

¹⁰ Petrovski u. a. 2008, 92–94.

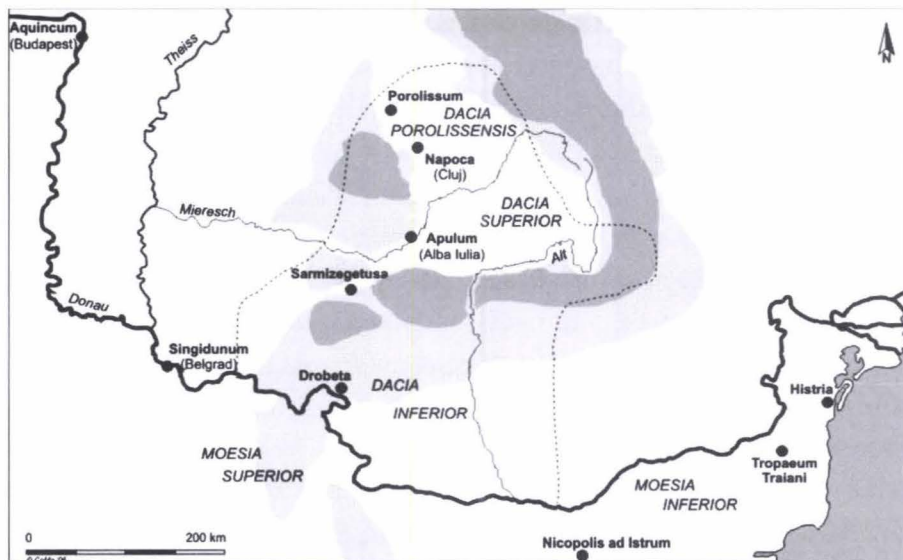


Abb. 2. Das römische Dakien (M. Fiedler, C. Höpken, Sz. Pánczél).

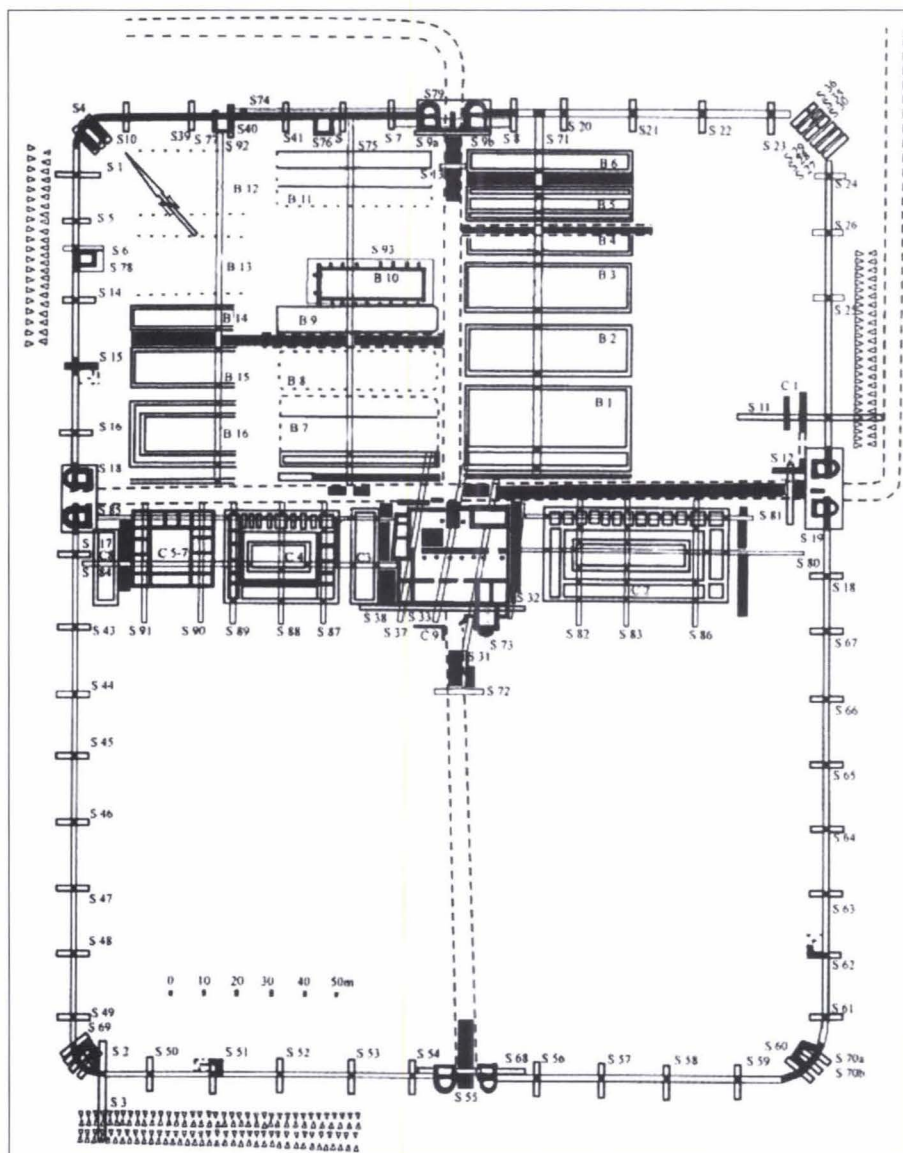


Abb. 3. Das Kastell von Porolissum: Rekonstruktion der Innenbebauung nach den Ausgrabungen von N. Gudea (Gudea 1997a, 97, Abb. 9).

zunächst schematisch,¹¹ doch werden detaillierte Untersuchungen in der Zukunft genauere Arbeitsmodelle ermöglichen: Die ausgegrabenen und konservierten Mauerreste wurden erneut vermessen und mit der Bauaufnahme begonnen. Die älteren Forschungsergebnisse und Pläne werden gemeinsam mit den neu gewonnenen Daten in einem einheitlichen System erfasst und in digitale Pläne umgesetzt. Sie liefern die Basis für die theoretische Rekonstruktion der Wehranlagen, der Innenbebauung und Bauten der zivilen Siedlung. Die Ergebnisse der bisherigen und in den nächsten Jahren weiterzuführenden geophysikalischen Prospektion liefern die Grundlage für die dreidimensionale graphische Umsetzung der Binnenstruktur des Kastells. Ziel ist eine Visualisierung des gesamten archäologischen Areals. Die 3D-Darstellung aller bisherigen Forschungsergebnisse bildet eine interdisziplinäre Brücke zwischen unterschiedlichen Forschungen und Interpretationsansätzen.

Die archäologischen Untersuchungen konzentrieren sich auf das Zentrum des Lagers, wo 1984 ein unterirdisches Gebäude in den Sondagen S84 und S85 neben den vorher freigelegten *principia* angeschnitten wurde (Abb. 3, Gebäude C3). Den damaligen Ergebnissen zufolge handelt es sich um einen ca. 30 m langen und 7,50 m breiten Bau, der mit seiner nord-östlichen Schmalseite an der *via principalis* lag. Sein Fußboden, der laut Grabungsbericht etwa 4 m unter dem Laufniveau der *principia* lag, war mit Ziegelplatten ausgelegt und soll mit einem rosafarbenen Mörtel (*opus signinum*) bedeckt gewesen sein. Die Wände waren bis zu 1,75 m hoch erhalten; in einer Höhe von 1,25 bis 1,5 m über dem Boden setzte eine Deckenwölbung an. Farbige Putzstücke wurden als Überreste einer farbigen Raumausgestaltung gedeutet. Im südlichen Schnitt S84 zeigte sich mittig ein Steinfundament, auf dem möglicherweise eine Basis oder ein Pfeiler gestanden hat. Im Zusammenhang mit den Funden – darunter eine Inschrift *D·I·M* sowie Skulpturen- und Relieffragmente – vermutete der Ausgräber hier ein Mithräum.¹²

Die nicht unumstrittene Interpretation zu dem Gebäude und seine prominente Lage innerhalb des Kastells waren Anlass für eine detaillierte Neuuntersuchung mit dem Ziel, die konstruktiven Details, Bauphasen und Datierung sowie die Funktion(en) zu klären. Sollte es sich um ein Mithräum handeln, wäre die Lage im Zentrum eines Kastells bislang singulär. Allein in Aquincum, im Haus des *laticlavus*, befand sich ein Mithräum in einem Lager.¹³

Generell sind Hinterlassenschaften des Mithraskultes in den römischen Provinzen sehr häufig, und gerade in Dakien gibt es reichhaltige Nachweise der Mithrasverehrung.¹⁴ Zeitlich fallen zudem das Bestehen des Kastells Porolissum und die Blütezeit des Mithraskultes zusammen.

¹¹ Der Leitfaden ist hierbei, vom Schematischen zum Detaillierten zu gehen: Die ehemalige Baumasse erzeugt man zunächst aus Grundkörpern wie Zylindern, Kuben, etc. Diese werden miteinander kombiniert, unterteilt und später verfeinert. Zuerst entsteht so das Bild der gesamten Struktur, erst danach folgt die minutiöse Aufarbeitung und Darstellung der einzelnen Details.

¹² Seit der ersten Veröffentlichung der Grabungen (Gudea u. a. 1986, 120, 122) wurden die Ergebnisse in Beiträgen zu Dakien (Gudea 1997b, 49; Gudea–Lobüscher 2006, 79), zu Porolissum (Gudea 1986, 108–109; Gudea 1989a, 23–24; Gudea 2003, 234–235; Gudea–Tamba 2005, 472), zum Lager auf dem Pomiet (Gudea 1997a, 70–71) oder zum Gebäude C3 (Gudea 2005) wiederholt. In einem Aufsatz zu den Mithräen in Dakien (Pintilie 2000, 238) wurden unzutreffende Angaben veröffentlicht, die den Ausgräber veranlassten, die Informationen zu vervollständigen (Gudea 2002, 618–620). Alicu und Marcu bezweifeln die Interpretation als Mithräum (Alicu 2002, 231–233; Marcu 2005, 84–91; Marcu 2009, 93–96).

¹³ Kocsis 1989; 1991; Clauss 1992, 183. Während die meisten Anhänger des Mithraskultes in den Provinzen der mittleren und niederen Militärs und Gesellschaftsklassen angehörten, belegen die Inschriften aus Pannonia Superior und insbesondere Aquincum, dass die Anhänger hier der Oberschicht angehörten (Clauss 1992, 188–190). Darin dürfe der Grund für die Lage des Mithräums im Lager von Aquincum liegen.

¹⁴ Clauss 1992, 191–208. Den Inschriften nach sind Zivilisten häufiger als Militärs Anhänger des Mithraskultes.

Die prominente Lage des Gebäudes im Kastell von Porolissum neben den *principia* weist jedenfalls auf eine zentrale Funktion hin: Der Bau muss nicht nur mit Duldung, sondern auch unter der Ägide des Lagerkommandanten entstanden sein.

Geoelektrische und geomagnetische Untersuchungen, die im Vorfeld der neuen Grabungen stattfanden, bestätigten den Grundriss, die Maße und die Tiefe des unterirdischen Baus (Taf. 2). Vor Beginn der Freilegung im Sommer 2009 wurde das Areal mit einem Schutzdach überdeckt (Taf. 3/1), um die Befunde nicht durch die Witterung zu beeinträchtigen. Innerhalb eines neu eingerichteten Quadrantensystems wurden vier 5 × 4 m große Schnitte angelegt, die Sondagen von 1984 wieder ausgehoben und die dortigen Profile erneut aufgenommen. Massive, meterhohe Schuttschichten führten dazu, dass in den neuen Schnitten das Laufniveau im Inneren des Gebäudes noch nicht erreicht werden konnte.

Der Fußboden des Baus besteht aus sorgfältig verlegten Ziegelplatten von 40 × 30 cm Größe mit einem regelmäßigen Fugenschnitt, die mit einem durch Ziegelsplitt und Ziegelmehl rötlich durchgefärbten, hydraulischen Kalkputz ausgefugt sind (Taf. 3/2). Der Boden wurde offensichtlich lange Zeit begangen: Abgetretene Wischzeichen auf den Ziegeln und schadhafter Fugenverstrich führen eine ausgiebige Nutzung des Bodens vor Augen. Die Wände aus *opus incertum* haben eine Mauerstärke von ca. 1 m. In den obersten erhaltenen Partien des Mauerwerkes ist eine Krümmung nachzuweisen, die zu der Annahme führt, dass der Kellerraum überwölbt war. Anhaltspunkte zu den Details der Deckenkonstruktion werden die weiterführenden Grabungen ergeben.

Die Wände waren außen mit einer mindestens einen halben Meter starken Lehmpackung hinterfüllt, die zweifelsfrei der Isolierung der Kellerwände diente. Im Gebäudeinneren weist der Übergang vom Fußboden zum aufgehenden Mauerwerk einen unregelmäßigen Sockel aus *opus signinum* auf, mit dem auch Teile des aufgehenden Mauerwerks verkleidet waren. Erste Untersuchungen zum Aufbau der Wandputze sind den während der Grabung anwesenden Restauratoren zu verdanken:

Die an den Wänden *in situ* erhaltenen Partien sowie zahlreiche Fragmente im Versturz des Gebäudes setzen sich aus zwei aufeinanderliegenden, durchgefärbten Putzen zusammen (Taf. 3/3–4). Beide lassen sich als eigenständige Raumfassungen ansprechen. Die untere (= ältere) Schicht ist weiß, die darauf aufgebrachte rosafarben. Die untere weiße Fassung besteht aus einem einlagigen, nur wenige Millimeter starken Kalkputz, der sich aus Kalk (mit hohem Bindemittelanteil) und feinem mineralischem Zuschlag (vor allem Sanden, vereinzelt Feinkies mit bis zu 4 mm ø) zusammensetzt.

Diese Putzzusammensetzung könnte gemeinsam mit der Putzverdichtung und Oberflächenglättung (Kellenglättung?) für eine Wandfassung (Imitation weißen Marmors?) sprechen. Die darauf aufgetragene zweite Schicht ist ebenfalls einlagig, wenige Millimeter dünn und aufgrund des Zuschlags aus feinem Ziegelmehl (als Hydraulefaktor?) rosé durchgefärbt. Der Putz ist ebenfalls verdichtet und kellengeglättet und zeigt eine seidenglänzende Oberfläche.

Großflächige Partien von Wandputz werden erst in der nächsten Grabungskampagne freigelegt werden. Dann wird auch die Frage des Zugangs zu dem Kellergebäude zu klären sein. Zu erwarten sind auch Funde im Gebäudeversturz, die konkrete Hinweise auf die Art der Nutzung des Baus geben werden.

Von der Zerstörung des Gebäudes rühren massive, den ehemaligen Fußboden überlagernde Versturzschichten im Gebäudeinneren her (Abb. 4). Einzelne Lagen vom Zusammenbruch der Wände und dem Einsturz der Decke können unterschieden werden.

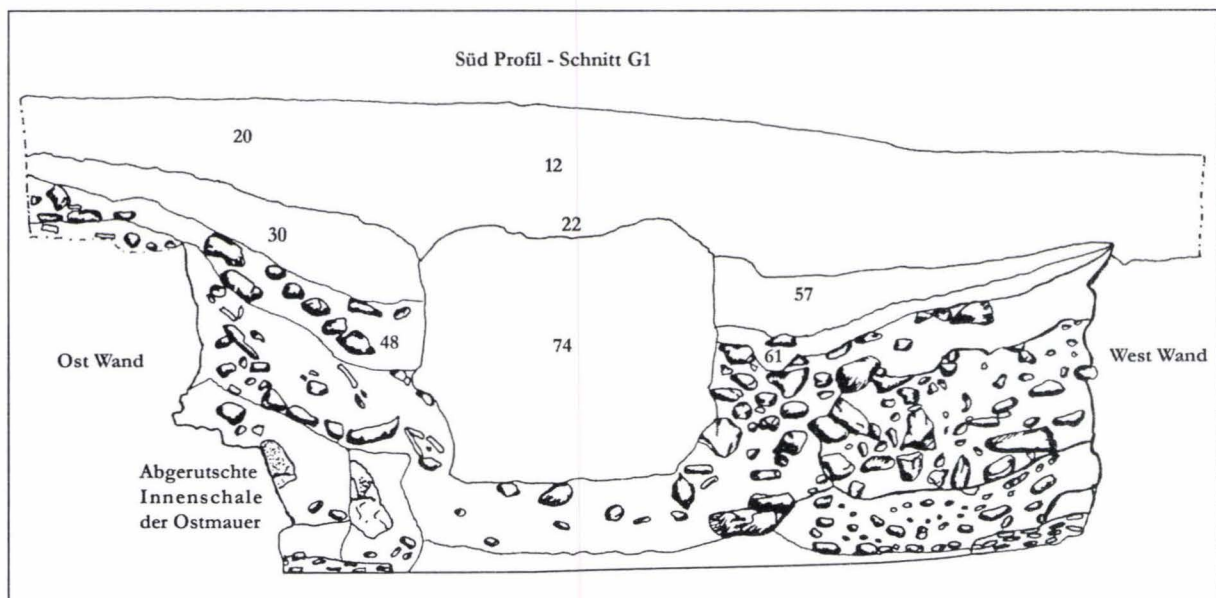


Abb. 4. Profil durch das unterirdische Gebäude C3 (G. Döhner, L. Vass).

Diese ca. 2 Meter dicke Schicht wurde ihrerseits durch Sedimente überdeckt (Abb. 4, Kontexte 30, 48, 57, 61), die auch die Reste der aufgehenden Wände und Sedimente außerhalb des Gebäudes überlagerte. Sie rühren vermutlich teilweise von der Zerstörung umliegender Gebäude her, insbesondere der *principia*. Ein moderner Eingriff hatte sowohl den Gebäudeversturz als auch die überlagernde Schicht gestört (Abb. 4, Kontext 74): Die Verfüllung dieser Störung war durch Steinmaterial aus dem Gebäude dominiert. Insgesamt scheint es sich um eine wiederverfüllte Sondage zu handeln, die möglicherweise mit der Freilegung der *principia* in Zusammenhang steht. Zuerst zeigten sich schließlich ca. 40 cm mächtige Lehmschichten (Abb. 4, Kontexte 12, 20, 22), bei der es sich offensichtlich um Grabungsaushub des Nachbargebäudes handelt.

Schon in der Planungsphase des Porolissum-Projektes wurde auf die Anwesenheit von Restauratoren während der Grabungen gedrungen,¹⁵ begründet durch die in den Sondagen von 1984 entdeckten Fragmente von Wandmalereien.

Bislang wurden über 100 Objekte bearbeitet, die neben Putzfragmenten zumeist kleine Objekte und – in Überzahl – Fragmente der Materialgruppen Metall (35 Bronze-, 25 Eisen-, 2 Bleiobjekte) und Keramik umfassen. Darunter befinden sich eine Reihe von Silber- und Bronzemünzen, Fibeln, Pinzetten, ein Griff eines Wachsspachtels (Taf. 3/5), Speerspitzen, Nägel und

¹⁵ Das rumänische Denkmalschutzgesetz sieht keine obligatorische Anwesenheit von Restauratoren bei archäologischen Grabungen vor. Ziel der interdisziplinären Arbeiten ist es, die bei der Grabung geborgenen Funde je nach Fundsituation und Erhaltungszustand *in* oder *ex situ* zeitnah von Fachleuten konservatorisch zu behandeln. Dieses Prozedere sollte bei archäologischen Grabungen selbstverständlich sein, doch stellt es immer noch einen Ausnahmefall dar. Den Teilnehmer/Innen am Porolissum-Projekt bietet dieses gleichzeitige Arbeiten einen einmaligen Einblick in die Arbeitsweisen, methodischen Fragen und Zielstellungen der anderen Gewerke. Anstelle der zeitversetzten – persönliche und fachliche Bezüge kappenden – Arbeitsabfolge finden im Rahmen des Porolissum-Projektes Bergung, Dokumentation, Inventarisierung und Konservierung der Objekte im Zeitraum von nur wenigen Tagen statt. Direkt nach Auffindung und Dokumentation/Inventarisierung bringen die Ausgräber ihre Objekte vielfach persönlich zu den Restauratoren und können in der temporär eingerichteten Restaurierungswerkstatt die konservatorische Behandlung mitverfolgen, sich über weiterführende Eingriffe, Fragen hinsichtlich ästhetischer Präsentation, Lagerung, musealen Präsentation etc. direkt informieren. Die Restauratoren wiederum bauen durch diesen unmittelbaren Kontakt mit dem Ausgräber einen anderen Bezug zum Objekt auf.

Lampen (Taf. 3/6). Hervorzuheben sind mehrere großstückig überlieferte, z.T. mit Flickungen versehene Gußbronzestücke, die von Großbronzen (Statuen) stammen.¹⁶

Von besonderem Interesse waren die Fragmente von Wandmalerei (Abb. Taf. 3/7). Bei den Putzen, die auf eine ehemalige bunt gestaltete Architekturfassung oder sogar auf Wandmalereien hinweisen, lassen sich zwei Arten unterscheiden: 1) karbonatisch gebundene, grau-weiße Kalkputze mit entweder monochromer oder mehrfarbiger Malerei und 2) durchgefärbte monochrome Kalkputze (s.o.).¹⁷

Es handelt sich um mehr als sechzig Fragmente von geringer (bis ca. 12 cm²) Fläche, die losgelöst von einem Wand-, Decken- oder Bodenzusammenhang, gefunden wurden. Die Putzschicht ist mit einer nur wenige Millimeter (2–15 mm) betragenden Stärke¹⁸ für römische Putze ausgesprochen dünn.¹⁹

Etwas mehr als zwanzig Fragmente stammen aus einer gemalten Raumfassung oder sogar von einer bildlichen Darstellung. Sie weisen – mit Ausnahme eines Fragmentes mit grüner Malschicht²⁰ – eine rote Farbigkeit (Eisenoxid) auf. Bei einigen Fundstücken setzt sich die rote Malerei geradlinig von dem weißen Fondton des Kalkputzes ab.²¹ Die Putze der Malerei/Raumfassung differenzieren sich in Aufbau, Zusammensetzung und Farbigkeit deutlich von den oben beschriebenen, z.T. an den Wänden des Gebäudes *in situ* erhaltenen durchgefärbten Materialien: Sie sind einlagig und – mit wenigen Millimetern Stärke – verhältnismäßig dünn aufgetragen. Tonige Bestandteile verleihen ihnen eine zartgrau bis ockerweiße Farbigkeit. Es handelt sich um einen harten Kalkputz, dessen Zuschlag sich aus fein gehäckseltem, nur noch durch die Abdrücke nachweisbares Stroh/Gras sowie feinen Sanden (Ø bis 1 mm) zusammensetzt und keinen Ziegelzusatz aufweist.²²

¹⁶ Die konservatorisch-/restauratorische Behandlung erfolgte materialspezifisch nach standardisiertem Prozedere, das freilich dem jeweiligen Erhaltungszustand, der Art und Konsistenz der Auflagerungen sowie der gebildeten Korrosionsprodukten etc. Rechnung trägt. So wurde bei den fragilen und instabilen Metallfunden eine erste Notsicherung oder auch Vorfestigung vorgenommen. Hierbei kam das in der Konservierung/Restaurierung bewährte Kunstharz Paraloid B72, ein Copolymer aus Ethylmethacrylat und Methylacrylat, in 5%iger Lösung (Lösungsmittel: Aceton) zum Einsatz. Die fester gebundenen Oberflächenauflagerungen (Sediment) wurden mechanisch mit Skalpell, Dentalwerkzeug, Glasfaserstift, mitunter auch mit einem Mikrofräser (besetzt mit Korund- und Edelstahlköpfen) entfernt. Zum Teil reichte aber auch das simple Reinigen mit einem Wasser-Alkoholgemisch (Applikation mit Naturhaarpinsel). Die Korrosionsprodukte wurden mechanisch ausgedünnt oder auch entfernt, wobei Skalpelle, weichere Holz- oder Plastikstäbchen sowie der Ultraschallfeinmeißel zum Einsatz kamen. Korrosionsreste wurden je nach Zustand mit dem Komplexon 3 EDTA behandelt. Die Festigung labiler Teile sowie Verklebungen erfolgten wiederum mit Paraloid B72 – nun allerdings in höherer Konzentration (20%, in Aceton gelöst). Zur langfristigen Sicherung hinsichtlich Depotlagerung bzw. möglicher künftiger Ausstellungssituation erhielten alle behandelten Metallteile einen vor Korrosion schützenden temporären Überzug aus mikrokristallinem Wachs (Cosmoloid H 80), der in Shellsol D 40 (20%) gelöst, mit dem Pinsel auf das vorher mittels Fön erwärmte Objekt aufgetragen wurde. Die Arbeiten erfolgten unter Stirnlupe oder Mikroskop.

¹⁷ Die Feststellung, dass es sich um karbonatisch gebundene Putze und Wandmalereien (= Fresko) handelt, ist visueller Natur. Chemische Analysen sind bisher noch nicht durchgeführt worden. Für die Anfertigung des Querschliffs danken wir Frank Mucha (Erfurt).

¹⁸ Einzig SF 207 weist eine Stärke von 22 mm auf.

¹⁹ Putze römischer Wandmalereien und Raumfassungen haben normalerweise eine Stärke von mehreren Zentimetern.

²⁰ SF 416. Pigment: wahrscheinlich grüne Erde; die geringe Größe (3,1 × 2,3 cm) und der schlechte Erhaltungszustand lassen keine Schlüsse auf die künstlerische Gestaltung zu.

²¹ Z.B.: SF 371 (Abmessungen: 27,7 mm × 21,8 mm × 9,1 mm).

²² Die Putzfragmente mit Malerei/Raumfassung sowie die durchgefärbten Putze erwiesen sich durchgehend als äußerst stabil. Die konservatorische Behandlung beschränkte sich daher auf:

Die meisten der farbigen Fragmente wurden im oberen Sedimentpaket, das den Gebäudeversturz überlagert, gefunden. Somit ist die Frage noch offen, welchem der Gebäude die farbigen Raumfassungen zuzuweisen sind. Inwieweit auch farbiger Wandputz dem Kellergebäude oder vielleicht auch einem darüber errichteten Gebäude angehörte und Reste eine ‚Rauminventars‘ erhalten sind, wird in der folgenden Grabungskampagne zu klären sein.

* * *

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- Wässern (der stabilen Fragmente) in sauberem Wasser (präventive Maßnahme gegen Salzausblühungen, die allerdings nicht/kaum festzustellen waren).
 - mechanisches Entfernen der (vielfach tonigen) Oberflächenauflagerungen mit Haarpinsel (mitunter auch mit Skalpell).
 - vorsichtiges Reinigen mit H₂O (Wattestäbchen, weicher Pinsel)
 - langsames und kontrolliertes Trocknen (im Schatten)
 - (in wenigen Fällen) lokale Festigung der pudernden Malschichten mit Paraloid B 72 (3% Lösung in Aceton).

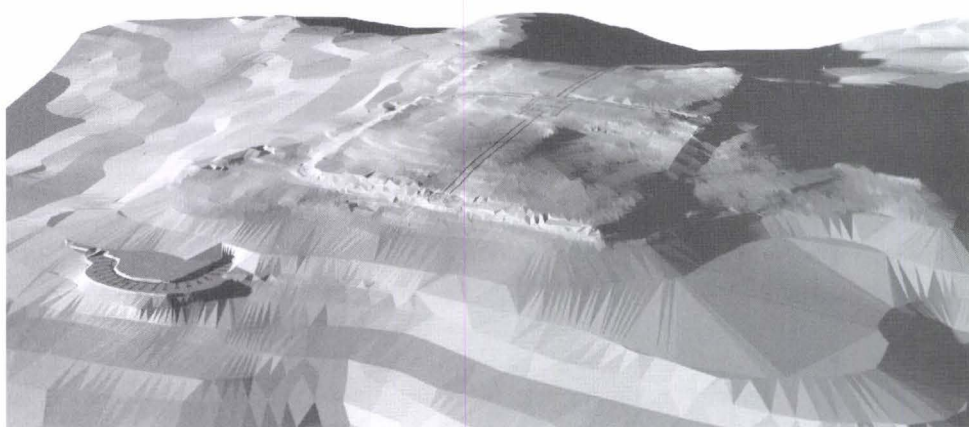
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ABBILDUNGEN

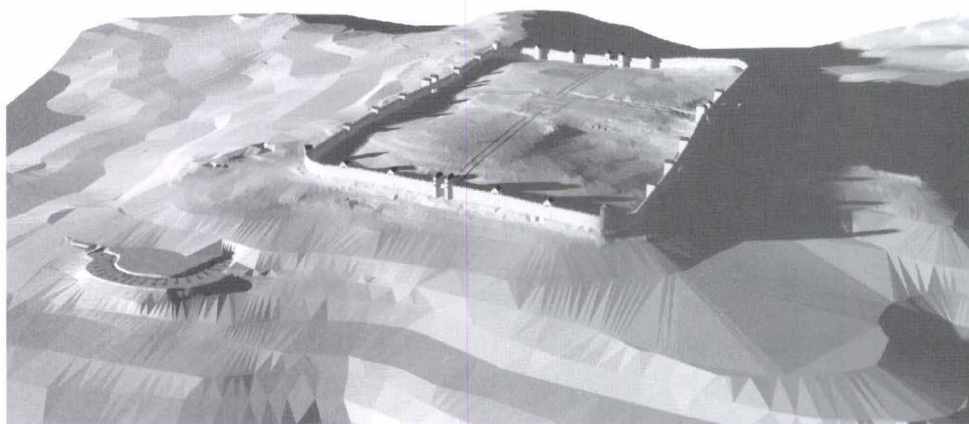
- Abb. 1. Porolissum am Dakischen Limes (Sz. Pánczél).
- Abb. 2. Das römische Dakien (M. Fiedler, C. Höpken, Sz. Pánczél).
- Abb. 3. Das Kastell von Porolissum: Rekonstruktion der Innenbebauung nach den Ausgrabungen von N. Gudea (Gudea 1997a, 97, Abb. 9).
- Abb. 4. Profil durch das unterirdische Gebäude C3 (G. Döhner, L. Vass).

TAFELN

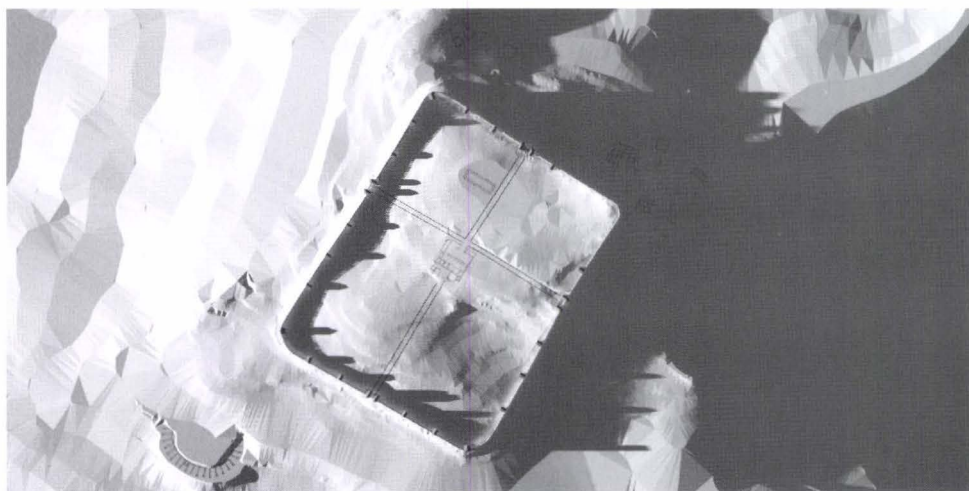
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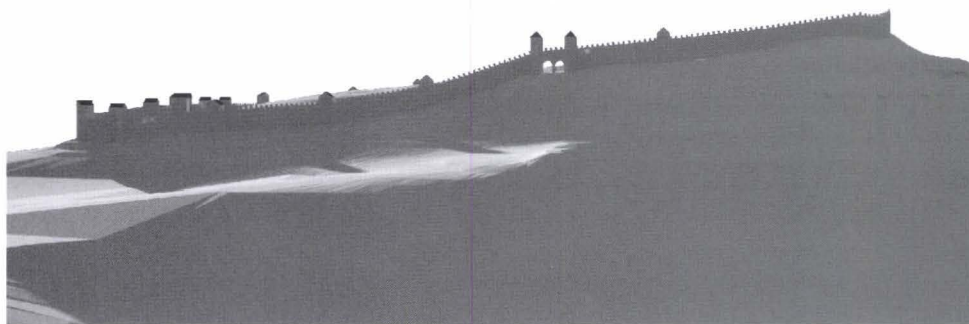
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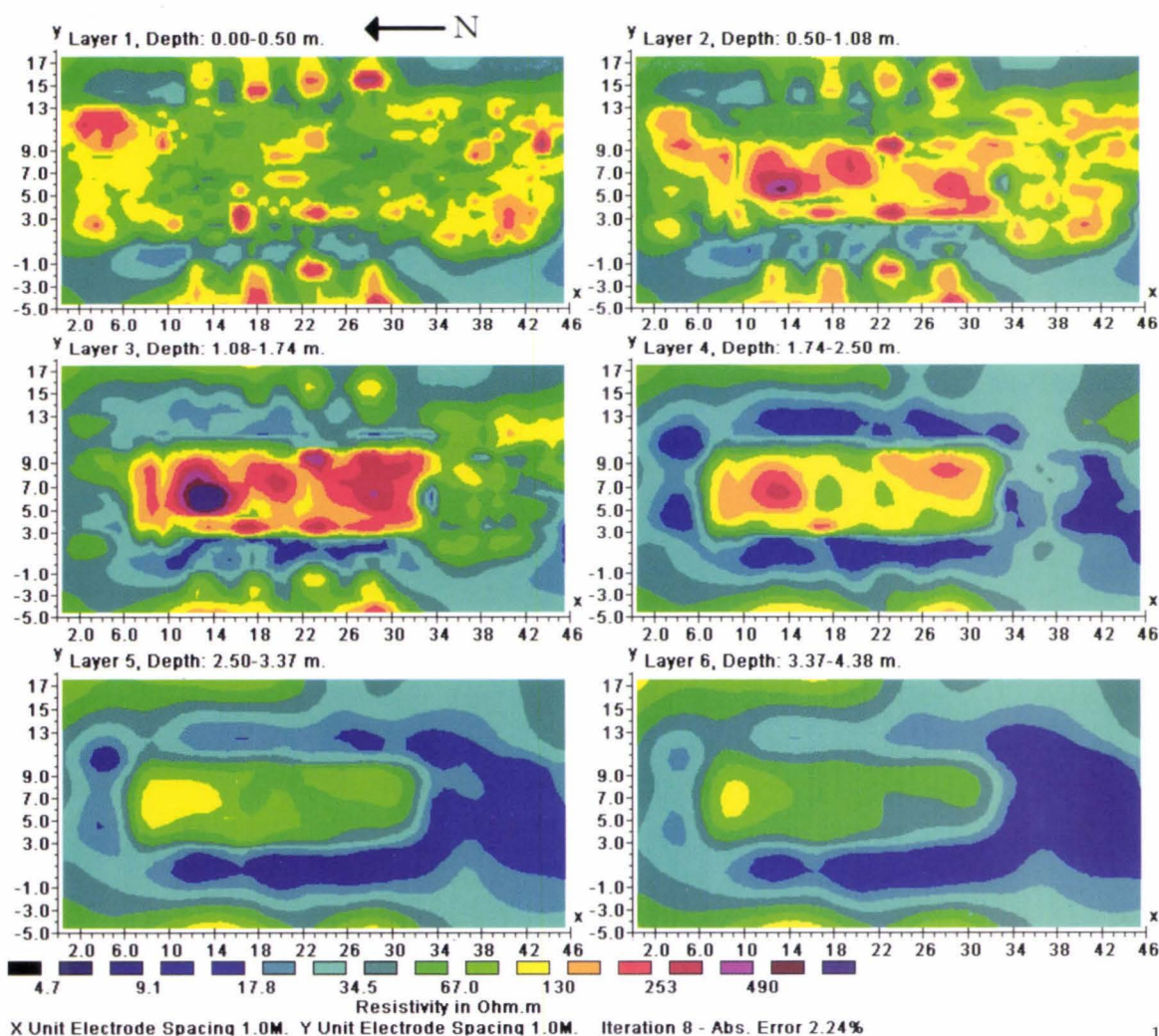


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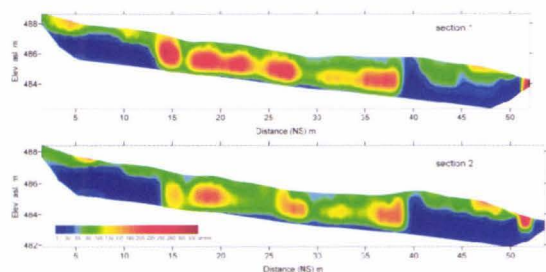


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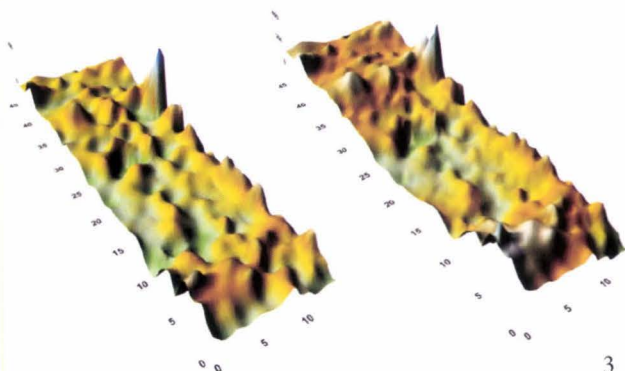
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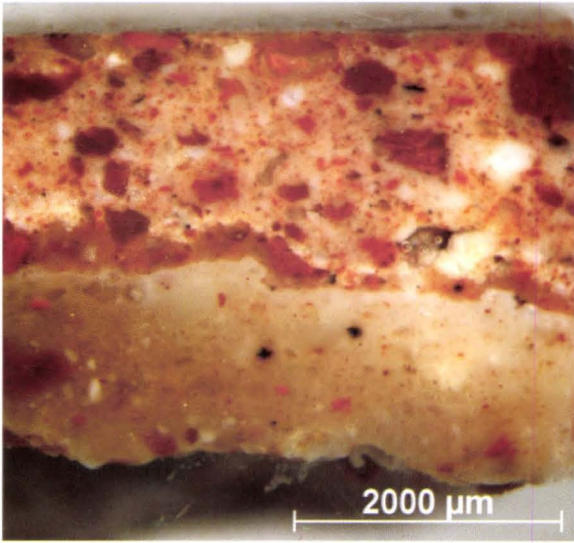
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Tafel 3. 1. Die Grabung in Porolissum im August 2009 (M. Fiedler); 2. Fußboden des unterirdischen Gebäudes C3 von Porolissum (M. Fiedler); 3. Zweischichtiger Wandputz im Querschnitt (F. Mucha); 4. Zweischichtiger Wandputz (Chr. Merzenich); 5. Bronzener Griff eines Wachsspachtels (M. Fiedler); 6. Lampenspiegel (M. Fiedler); 7. Fragmente von bemaltem Wandputz (Chr. Merzenich).

WOMEN IN A MAN'S WORLD? FEMALE RELATED ARTEFACTS FROM THE CAMPS OF DACIA

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The hypothesis according to which women played an active role in the daily life of a soldier within military forts is one of the major themes of the Roman gender archaeology. The large quantity of female sized-shoes in the barracks in the camp of Vindolanda,¹ not to mention the written evidence of one of the famous tablets from this site,² or the large distribution of female related artefacts at Vetera I³ indicate that, in spite of the legal ban, women could have had access to the inner buildings of one camp, and lived an active life within it.

The presence of women in military spaces seems to be accepted by researchers of the military history as well. Adrian Goldsworthy in his work about the Roman army treats this subject as evidence supported by artefacts unearthed from different forts.⁴ In spite of the legal ban of the soldiers' marriage introduced by Augustus and lifted only in the 3rd century AD by Septimius Severus, many researchers leave from the premise that 25 years of military duty would be too long period for excluding women from the daily life of a soldier.⁵ Though the different jewellery articles as well as some clothing accessories found in military camps in the Roman Empire seems to be the most convincing proofs of female presence in military spaces, all the researchers agree that their 'sexing' is very subjective, sometimes even impossible.⁶

¹ van Driel-Murray 1997; 2001.

² The writing tablet found in the fort of Vindolanda contains a warm invitation of Suspicia Lepidina, the wife of Flavius Cerialis, prefect of one of the cohorts from this camp, to the birthday of Claudia Severa. This letter proves that wives were not only present in camps, but they lived a very vivid social life as well, Bowman-Thomas 1987, 137-140.

³ Allison 2005, 835-836, fig. 11.

⁴ Goldsworthy 2003, 103.

⁵ "How can there even be any doubt about the presence of women, when a large percentage of males spent 25 years – for many of them their entire life span – in the army and the system was maintained over 400 year?" (van Driel-Murray 1997, 55).

⁶ van Driel-Murray 1997, 55. Taking into consideration the subjective character of 'sexing' small finds, the author believes that the female size shoes can be related to women with more certainty. B. Rudán and U. Brandl after a critical review of ancient sources and artefacts came to the conclusion that there is almost no objective and convincing argument to point out the presence of women in forts (Rudán-Brandl 2008). In order to exclude the subjective feature of 'sexing' P. M. Allison developed a special methodology (with critical review) in mapping artefacts in the camp of Vetera I (Allison 2005; 2006).

How do we understand questionable and subjective artefacts are they enough to highlight a possible female presence, such as in the case of the province of Dacia? Although the number of the possibly female related artefacts (hairpins, brooches, necklaces, earrings, rings, pendants, spindle whorls) recovered from the camps of Dacia do not represent large quantities, they are too many to be ignored. The aim of this paper is to interpret these artefacts found in the military forts of Dacia and to apply the general gender methodology in order to point out the possible presence of women in forts.

Gender archaeology in Roman archaeology in Romania is a totally unknown domain. The research of the different Roman archaeological sites is characterized rather by positivistic methodology that produced quantitative studies in what concerns the investigation of material culture. In this conception clear and close categories exist concerning the usage, the origin, the meaning of an object, which are not questioned by anybody. Taking into consideration the historical evidence consisting of ancient written sources⁷ regarding the ban of marriage of the soldiers, the restriction of women to enter forts led to a very false preconception in Romanian archaeology: the military camp is a closed entity where civilians, especially women had no access, a world where the two sexes do not interact.

This preconception is so strong that archaeologists in the case of handling women related objects within forts tend to give them another functionality that fits in this general clichés. It is the case of some spindle whorls recovered in the military fort from Buciumi⁸ and Răcari.⁹

In the Romanian literature there are only two studies on jewellery items found in military forts written by A. Isac. The author analyzing the jewelleryes from Ilișua¹⁰ and of different forts from Dacia Porolissensis¹¹ limited her research on the typological study of the artefacts.

Beside the passive and spurned attitude of researchers, the research of this subject is hardened by some special features as well which originate from the special character of the province of Dacia. During the almost 165 year of Roman domination in Dacia crucial and significant changes couldn't be done in the province's social and economic life, though this interval of 2nd and 3rd century is generally characterized by fundamental social, economic and military changes on the level of Empire.¹² In comparison with the western provinces, where a certain continuity of time existed, the period of change can be easily pointed out, whilst Dacia whose existence covers the whole above mentioned period, has no continuity of time. Thus, it is almost

⁷ The ban of soldiers' marriage until the rising of Septimius Severus seems to be a constant element in the ancient contemporary biographies or histories. Augustus in the urge of disposing a stricter discipline after the civil wars, prohibited the marriage of soldiers in service; Suet. Aug. 24.1, apud Campbell 1978, 154, note 8. At this ban is referring Cassius Dio when he mentions at Claudius that "*he gave the rights of married men to the soldiers, since in accordance with the law, they were not permitted to have wives*" (Cassius Dio 76.15.2, apud Campbell 1978, note 2). The statement of Quintilianus that "*...intrare castra feminis non licet*" emphasize the same prohibition (Quintilian, Declamatio 3.12, apud Rudán–Brandl 2008, 1), that is suspended only after two centuries, under Septimius Severus (Herodian III.8.5, apud Campbell 1978, 160). For the legal aspect and effects of this ban see the paper of Campbell 1987.

⁸ Chirilă *et al.* 1972, 132, note 76. N. Gudea leaving from the premise of the archaeological context where these objects were recovered from, states that these artefacts could have had other functionality.

⁹ The authors believe that the spindle whorls recovered from Răcari belonged rather to the vicus, or they were manufactured by the soldiers for their families or for other purposes (Bondoc–Gudea 2009, 196).

¹⁰ Isac–Gaiu 2006.

¹¹ Isac 1999.

¹² The recruitment of ethnically based auxiliary units is assured by the inhabitants of the place where the units were stationed.

impossible to determine a strict chronological and typological evolution of material culture in these two centuries, not to mention the fact that the artefacts used in this period had a very long period of usage. So, many objects found in military forts without the precise indication of the archaeological context, were dated generally to the 2nd and 3rd century (Appendix).

The native population of a province usually preserved its traditional habits, ways of dressing, its typical accessories, jewellery during the Roman occupation. These typical objects ease the ethnical correlation of some type of artefacts,¹³ thus allowing the formulation of some kind of social conclusion concerning the nature of relation between a soldier and a woman in a fort.¹⁴ In the case of Dacia the original native population, the Dacians, mysteriously disappeared or withdrew in the background after the war led by Trajan against them, in 105–106 AD. Thus, in the lack of supportive artefacts we don't know if there existed any kind of social interaction between the soldiers and local, native population.

Determining the sex of a small find can be made on the basis of the grave goods found in women inhumation burials as well. In Dacia, the rite of the inhumation burial, for a certain reason, has never become fashionable, so the majority of the graves are incineration graves.¹⁵ The correlation of a special type of artefacts to a gender is nearly impossible in these conditions. In plus, there are very little Roman cemeteries known, researched and published in Dacia.

Although in the Roman archaeology the military space is the most researched domain in Romania, only a few of the researched complexes were investigated properly and carefully. There are only a few sites where barracks were researched and published.¹⁶ Therefore we do not dispose of precise information concerning the inner organization of a camp and micro-social world of the soldiers within a fort. The publications of small finds recovered from the Dacian camps are very scarce, too. In the case of many camps, the published artefacts are usually selected and have only an illustrative purpose; the finds in most of the cases, are not correlated to the find spots.¹⁷ Still there are some forts that provided bigger quantity of material and made possible to observe the distribution of them. We have to mention here the fort of Buciumi, Ilişua, Căşeu and Gilău where the excavations have been carried out more carefully or a part of the objects have been analyzed and published – it is the case of the jewellery coming from the camp of Căşeu, Gilău or Ilişua –,¹⁸ allowing thus a more precise record of the artefacts.

Methodology

Relating an artefact to a certain gender in the Roman material culture is very problematic and very subjective. It is almost impossible to apply objective and clear criteria concerning the gender related artefacts. Observing the presence of women in the Dacian forts I based my research on those small find types that are traditionally considered as typical female related objects such as:

¹³ In the western gender studies usually the hand-made pottery as opposite to the typical Roman tableware is used as ethnicity marker (Allison 2006, 350).

¹⁴ As W. S. Hanson mentions the original native inhabitants of an area could be another category of civilian population that could have interacted with the military sphere (Hanson 2005, 304). The correlation of certain artefacts to the inhabitants would suggest that soldiers could have had their concubine or slaves from the local population.

¹⁵ Damian *et al.* 2008 (Alburnus Maior); Protase 2002 (Obreja).

¹⁶ Chirilă *et al.* 1972 (Buciumi); Isac 2003 (Căşeu); Gudea 1997 (Porolissum); Bondoc–Gudea 2009 (Răcari).

¹⁷ Bondoc–Gudea 2009 (Răcari); Protase–Zrinyi 1994 (Brâncoveneşti); Protase *et al.* 2008 (Gherla); Bărbulescu 1997, Abb. 27/3 (Potaissa).

¹⁸ Isac 1999 (Căşeu and Gilău); Isac–Gaiu 2006 (Ilişua).

- a) *jewellery and adornment articles*: hairpins, pendants, necklaces, earrings, bracelets, rings, combs;
- b) *dress accessories*: certain types of brooches;
- c) *items related to female occupation*: spinning: spindle whorls.

It is to notice that almost all types of artefacts mentioned above could have had multiple functions and could have been used by both sexes. Different types of brooches, rings or pendants were usual accessories of the male costume as well. The lunulla-shaped pendants appear frequently

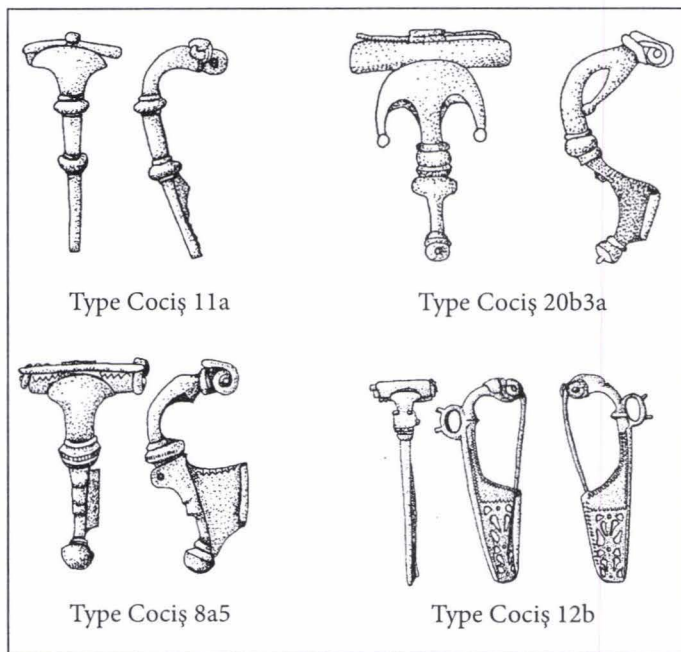


Fig. 1. Female brooch types (after Cociș 2008).

on funerary monuments as terminals of the military apron from the Early Empire.¹⁹ Hairpins, especially those with flat heads could have been easily used as medical instruments. To reduce this possibility as much as possible, I constrained the grouping of these artefacts to distinctive types:

1) As already mentioned different types of rings were worn by men and women, therefore seal rings and those with a diameter larger than 1.70 cm were rejected, instead I focused upon simple small-sized rings.

2) As S. Cociș in his monograph of Roman brooches in Dacia mentions,²⁰ the majority of brooches with known findspots were recovered from military

forts. Therefore I limited my sample to those types that are considered by Cociș – judging by the iconographical evidences of the funerary monuments from Dacia – as typical female brooches. Brooches of type 11 are represented on funerary monuments associated only with female clothing. These brooches appear on monuments coming from Apulum and from Cristești. Brooches of type 20b3–20b4 appear on female costume on a monument from Oltenia.²¹ In this way I reduced the sample to only four types of brooches: Type Cociș 8a5; Type Cociș 11a; Type Cociș 12b; and Type Cociș 20b3 (Fig. 1), although it is not excluded that other types of brooches – especially those of little sized – could have been worn by women, as well.

3) The primary stage of textile work, the spinning is traditionally considered to be the most typical occupation for Roman women. Ancient sources, the iconography of funerary monuments belonging to native women have all confirmed the female character of this activity, separating from the weaving and dying processes that could have functioned in workshop conditions with the participation of men, too. Spindle whorls are the only objects from this category that survived in camps, so I limited my selection to this distinctive type of artefact.²²

¹⁹ Bishop 1992, fig. 25.

²⁰ Cociș 2008, 451, graph 2.

²¹ Cociș 2008, pl. CLXXIII/1a–1b; CLXXIV/1a–1b (Apulum); CLXXV/1a–1b; CLXXVI/1a–1b (Cristești); CLXXVIII/2 (Oltenia).

²² The association of spinning and textile working with women is a constant element in ancient sources. Lucretius mentions that processing of wool was originally made by men and undertook later by women (Lucretius, *On*

Artefacts

All the researched objects are standardized products of the Roman material culture typical for the 2nd and 3rd centuries AD we hardly find any unique and especially beautiful items among them. Concerning the types of artefacts present in military forts from Dacia, it needs to be mentioned that the aim of this article is not to give a typological analysis; it provides rather a general picture of the main types found in camps.

Regarding the *brooches* (Pl. 1/1–5), S. Cociş distinguishes four types (Fig. 1): strongly profiled brooches (Type Cociş 8a5), Norican-Pannonian brooches with two knobs (Type Cociş 11a), Norican-Pannonian brooches with little wings (Type Cociş 12b) and anchor-shaped head brooches (Type Cociş 20b3a).²³ The first three types of brooches considered by S. Cociş as typically female are all of Norican-Pannonian origins and are generally dated to the first half of the 2nd century. Only the brooches with anchor-shaped head date to the 3rd quarter of the 2nd century and first half of the 3rd century. These brooch types are quite rare finds in the forts; we know only a few examples from Buciumi, Răcari, Bologa, Porolissum and Gherla.²⁴

The larger category of *beads* (Pl. 1/6–18) usually made of glass, ceramic or bronze, is a more frequent find in forts. The most popular types of beads are the melon shaped items, followed by the globular, annular, hexagonal, semispherical, discoid, elongated, biconic and spindle shaped beads.²⁵

Bracelets made of bronze, silver, gold or glass are not so numerous finds (Pl. 2/1–7). The majority of them were recovered from the forts of Ilişua, Gilău, Căşeu, Gherla, Răcari²⁶ and they

the Nature of Things 5, 1350–1360, apud Humphrey *et al.* 1999, 347). By Columella the spinning appears like an essential attribution of women (Columella, *On Agriculture*, 12.3.6, apud Humphrey *et al.* 1999, 363). This association of gender and task was accepted by researchers as well, J. P. Wild in his work on the textile industries of Roman Britain mentions “That spinning was a regular chore for the female members of a household in Roman Britain seems highly probable” (Wild 2002, 9). N. Guidicelli in her recent work on the female related crafts uses this association as evidence (Guidicelli 2009, 38, fig. 2).

²³ Cociş 2008, 53–54, 72–73, 74, 108.

²⁴ One item of type 8a5 and one item of type 11 were recovered from Buciumi (Chirilă *et al.* 1972, 89, nr. 12, Taf. XCIII/4; 88, nr. 6, Taf. XCII/2). In Răcari only 2 items of type 20 are known (Bondoc–Gudea 2009, 270, nr. 1053, pl. CL/1053; 271, nr. 1056, pl. CL/1056). Only two brooches of type 11 are known from the fort of Bologa (Gudea–Cociş 1995, 52, nr. 1–2, pl. 1/1–2). The big auxiliary fort from Porolissum provided two pieces of brooches of type 20 (Gudea *et al.* 2001, 80, nr. 33–34, pl. V/33–34). The auxiliary fort from Gherla is represented by one brooch of type 12b (Protase *et al.* 2008, 236, nr. 1, Taf. 1); and one example of type 20b3 (Protase *et al.* 2008, 237, nr. 3, Taf. X/3).

²⁵ Melon shaped beads: Chirilă *et al.* 1972, 90–91, nr. 1–13, Taf. XVII/1–12; XVIII/5 (Buciumi); Isac 1999, 761, nr. 23–25, 27–28, Taf. V/23–28 (Căşeu); Isac–Gaiu 2006, 425, nr. 21–23, pl. 2/21–23 (Ilişua). Globular beads: Isac 1999, 726, nr. 31, Taf. V/3 (Gilău); Isac–Gaiu 2006, 425, nr. 13, pl. 2/3 (Ilişua); Gudea 2008, nr. 3, pl. LXX/3 (Feldioara); Bondoc–Gudea 2009, 280, nr. 1133–1135, pl. CLX/1133–1135 (Răcari). Annular beads: Chirilă *et al.* 1972, 91, nr. 14, 16, Taf. XCVIII/1, 4 (Buciumi); Isac–Gaiu 2006, 425, nr. 13–20, pl. 2/13–20 (Ilişua); Gudea 2008, 229, nr. 1, pl. LXX/1 (Feldioara). Hexagonal beads: Isac–Gaiu 2006, 426, nr. 25, pl. 2/25 (Ilişua); Gudea 2008, 229, nr. 2, pl. LXX/2 (Feldioara). Semispherical bead: Bondoc–Gudea 2009, 280, nr. 1132, pl. CLIX/1132 (Răcari). Discoid beads: Isac 1999, 762, nr. 32, Pl. VI/32 (Gilău); Bondoc–Gudea 2000, 195, nr. 409, pl. LXXXII/409 (Răcari). Elongated bead: Bondoc–Gudea 2009, 279, nr. 1130, pl. CLIX/1130 (Răcari). Biconic beads: Chirilă *et al.* 1972, 91, nr. 17, Taf. XCVIII/3 (Buciumi); Gudea 2008, 174, nr. 10, pl. XXIX/9 (Feldioara); Bondoc–Gudea 2009, 280, nr. 1131 pl. CLIX/1131 (Răcari). Spindle shaped beads: Isac 1999, 762, nr. 36, Taf. VI/36 (Gilău); Isac–Gaiu 2006, 426, nr. 26, pl. 2/26 (Ilişua).

²⁶ In the fort of Ilişua two bracelets made of bronze were recovered: one with simple open ends and another piece with serpent open ends (Isac–Gaiu 2006, 425, nr. 11–12, pl. 1/11–12). The bracelets from Gilău are represented by five examples, of which two are made of silver each having open ends (Isac 1999, 760, nr. 15, pl. II/15; 761, nr. 18, pl. IV/18) and three of bronze (Isac 1999, 760, nr. 16–17, with closed ends, 761, nr. 20, with serpent open ends,

are usually simple types: bracelets with open ends, bracelets with closed ends and bracelets with serpent ends. The set of glass bracelets recovered from the fort of Răcari are unique pieces.

Rings (Pl. 2/8–16) are very frequent finds in military milieu, and they were worn by men as well by women.²⁷ Rings with seals and with inlaid gems were usually worn by men as sign of status and for legitimating documents. For this consideration we included only those types of simple rings with overlapped ends and twisted on the hoop and rings with simple circular form under the diameter of 1.7 cm. These types were found in Gilău, Cășeu, Ilișua, Brâncovești, Feldioara,²⁸ etc.

Pendants (Pl. 2/17–24) of *bullae*²⁹, *lunulla*³⁰ or Hercules' club (*Herkuleskeule*)³¹ type used as amulets are not so well represented either. Though these objects recovered are frequently used as accessories of military equipment,³² as a funerary monument from Apulum reveal,³³ they were used by women as hairdo ornament as well.

Earrings and necklaces (Pl. 3/1–2) are the most under represented jewellery types in Dacia. Except the earring of gold from Gherla with unknown archaeological context and two necklaces (one of gold and one of bronze) from Bologa and Cășeu³⁴ we don't find any other examples in military milieu.

Spindle whorls (Pl. 3/3–7) could not be built in any typology as they all look the same (Appendix). Only their size and weights differs which determines the quality of the yarn.³⁵

Hairpins (Pl. 3/8–21) are not just the most numerous and wide spread category of artefacts but they show the largest variety in typology. We hardly find any fort that has not at least one pin. Among all types hairpins with pointed, rounded and flat heads, together with the different sized globular headed hairpins are the most popular types. We find more sophisticated, decorated hairpin types as well like those with pinecone, or with figurate head.³⁶

pl. III/16–17; IV/18, 20. The one example made of bronze from Cășeu has closed ends and twisted ornamentation (Isac 1999, 761, nr. 19, Taf. IV/19). The only bracelet made of gold is coming from the camp of Răcari (Bondoc-Gudea 2009, 276, nr. 1102, pl. CLVI/1102). The unique glass bracelets from Răcari are all broken, so their type of endings could not be observed (Bondoc-Gudea 2009, 279, nr. 1125–1129, pl. CLIX/1125–1129).

²⁷ Riha 1990, 51.

²⁸ Isac 1999, 760, nr. 9–12, 13, Taf. II/9–12, 14 (Gilău); Isac 1999, 760, nr. 13, Taf. II/132 (Cășeu); Isac-Gaiu 2006, 424, nr. 7, 8, 425, nr. 9, 10, pl. 1/7–10 (Ilișua); Protase-Zrínyi 1994, 128, nr. 3, pl. LIV/3 (Brâncovești); Gudea 2009, 142, pl. LXVII/1 (Feldioara).

²⁹ Only one example of this type is known from Gilău (Isac 1999, 762, nr. 37, Taf. VI/37).

³⁰ This type of pendant is represented in the largest amount in military forts from Dacia: Chirilă *et al.* 1972, Taf. CXVII/5, 7, 9 (Buciumi); Isac 1999, 762, nr. 41, Taf. VI/41 (Cășeu); Isac 1999, 762, nr. 39–40, Taf. VI/39–40 (Gilău); Protase *et al.* 1997, pl. LXXXI/20–21 (Ilișua); Gudea 2008, 221, nr. 3, pl. LXVII/3 (Feldioara); Bondoc-Gudea 2009, 218, nr. 580, pl. CIII/580 (Răcari).

³¹ Isac 1999, 762, nr. 42, Taf. VI/42 (Gilău); Macrea *et al.* 1993, 107, nr. 5, pl. XXVI/5 (Praetorium).

³² Isac 1999, 758.

³³ Ciongradi 2007, 253, nr. M/A 2, Taf. 113/M/a 2.

³⁴ Protase *et al.* 2008, 106, nr. 2, Taf. LXXXII/2 (Gherla); Gudea 1973, 137, pl. 21/3 (Bologa); Isac 1999, nr. 21, Taf. V/21 (Cășeu).

³⁵ Wild 2002, 10.

³⁶ Hairpins with pointed heads: Bondoc-Gudea 2009, 275, nr. 1094, pl. CLV/1095 (Răcari); Gudea 2008, 225, nr. 3, pl. LXIX/3 (Feldioara); Isac 1999, 763, nr. 48, Taf. VII/48 (Cășeu); Isac 1999, 763, nr. 50, 51, Taf. VIII/50, 51, nr. 56, Taf. IX/56 (Gilău); Isac-Gaiu 2006, 428, nr. 43–46, pl. 4/34–46 (Ilișua); Protase *et al.* 2008, 258, nr. 2–3, Taf. LV/2–3 (Gherla); Gudea-Bajusz 1991, 93, nr. 47.28, 49.30, 50.31, 51.32, 52.33, 53.34, pl. VI/28, 30–34 (Porolissum); Chirilă *et al.* 1972, 92, nr. 6, Taf. C/5; Gudea-Bajusz 1991, 92, nr. 27.8, 28, 9, pl. IV/8, 9; 93, nr. 45.26, pl. V/26 (Buciumi). Hairpins with rounded and flat heads: Gudea-Bajusz 1991, 93, nr. 48.29, pl. VI/29 (Porolissum); Bondoc-Gudea 2009, 275, nr. 1096, pl. CLV/1096 (Răcari). Globular headed hairpins: Gudea-

Combs (Pl. 3/22) made of bone or other materials are very rare finds not only in camps but in the whole province. The fashion of combs appears mostly in the 4th century AD.³⁷ This could be probably the explanation of their lack in Dacia. The only published and known bone comb from Dacia was recovered from the fort of Gherla.³⁸ The semicircular comb decorated with incised dot-circle motif is very untypical for the Roman material culture; I did not find any analogy for this artefact for the 2nd and 3rd century AD in the Empire so far. It is not excluded that this object with unknown findspot was rather a spoil find from the surrounding area dated to a later period.

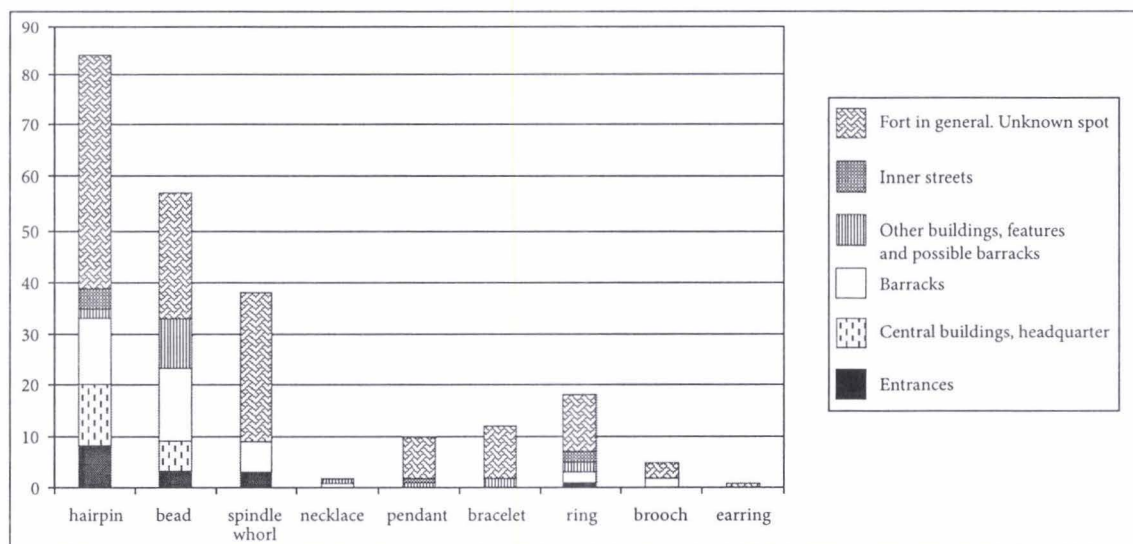


Fig. 2. Distribution pattern of artefacts.

The distribution pattern of the mentioned artefacts (Fig. 2) shows a striking inequality in representation. Necklaces and earrings are very rare finds in the military forts in Dacia, yet from nearly every fort at least one or two hairpins made of bone and bronze were recovered (Appendix). This could indicate that hairpins, especially those made of bone were cheap and very popular articles of hairdressing that could be easily replaced when lost. Various types of glass, ceramic or bronze beads are the second largest category. Their large quantity could also be misleading. As in the case of 12 glass beads³⁹ found in the same spot in the fort from Buciumi shows, their large individual number, may relate to a few individual item.

Bajusz 1991, 95, nr. 79.7, pl. IX/7 (Porolissum); Chirilă *et al.* 1972, 92, nr. 7–8, 10, Taf. C/6–7, 9; Gudea–Bajusz 1991, 97, nr. 97.11, pl. XII/11 (Buciumi); Isac 1999, 764, nr. 61–62, Taf. IX/61–62 (Cășeu); Protase *et al.* 2008, 253, nr. 4–6, Taf. XLII/4–6; 258, nr. 4–6, Taf. LV/4–6 (Gherla); Isac–Gaiu 2008, 427, nr. 41, pl. 3/41; 428, nr. 42, pl. 3/42 (Ilișua); Protase–Zrinyi 1994, 130, nr. 2, pl. LVIII/2 (Brâncovenești); Bondoc–Gudea 2009, 275, nr. 1095, pl. CLV/1095 (Răcari); Macrea *et al.* 1993, 108, nr. 9–11, pl. XXVI/9–11 (Praetorium). Decorated hairpins: Protase *et al.* 1972, 92, nr. 5, 9, pl. C/4, 8; 93, nr. 1–2, pl. CII/1–2; Gudea–Bajusz 1991, 99, nr. 124.1, pl. XVII/1 (Buciumi); Isac 1999, 763, nr. 49, Taf. VIII/49; 764, nr. 63, 68, Taf. X/63, 68 (Cășeu); Isac 1999, 764, nr. 59–60, Taf. IX/59–60, 764, nr. 64, 65, Taf. X/64, 65; 765, nr. 69, Taf. X/69 (Gilău); Protase *et al.* 2008, 253, nr. 1–3, Taf. XLII/1–3 (Gherla); Isac–Gaiu 2008, 426, nr. 29, pl. 2/29; 426, nr. 30–32, pl. 3/30–32; 427, nr. 36, pl. 3/36 (Ilișua); Protase–Zrinyi 1994, pl. LIVA/7 (Brâncovenești); Gudea 2008, 230, nr. 3, pl. LXXI/3 (Feldioara). Hairpins with pinecone: Gudea–Bajusz 1991, 101, nr. 140.4, pl. XIX/4; 102, nr. 146–147 (Porolissum); Isac 1999, 764, nr. 67, Taf. X/67 (Gilău); Protase *et al.* 2008, 258, nr. 1, Taf. LV/1; 259, nr. 7, Taf. LV/7; 259, nr. 1, Taf. LVI/1 (Gherla); Gudea–Bajusz 1991, 101, 134.5, pl. XVIII/5 (Râșnov). Hairpins with figurate head: Isac 1999, 763, nr. 45, Taf. VII/45 (Cășeu); Isac 1999, 762, nr. 43, Taf. VII/43 (Gilău); Bărbulescu 1997, Abb. 27/3 (Potaissa).

³⁷ Bíró 1994, 13.

³⁸ Protase *et al.* 2008, 259, nr. 9, Taf. LV/9.

³⁹ Chirilă *et al.* 1972, 90, nr. 1–12, Taf. XCVII/1–12.

Findspots inside the forts

I based my research on the published material from the excavations of forts and tried to determine in each case the typical female related objects, whilst observing their distribution. Unfortunately I could not cover the entire province, due to the poor state of prior research and publications. Dacia Porolissensis is the most researched province among the three Dacian provinces (Fig. 3); therefore the majority of the material and information comes from the auxiliary forts from there. From Dacia Superior only the camp from Inlăceni, Brâncovenești, while from Dacia Inferior the auxiliary fort from Răcari and Praetorium provided data and material which could be explained by the scant level of research in this area and the poor quality publications. It would have been very interesting to observe possible similarities or differences between auxiliary forts and the two legionary forts from Apulum and Potaissa,⁴⁰ but again the current state of research did not allow it.

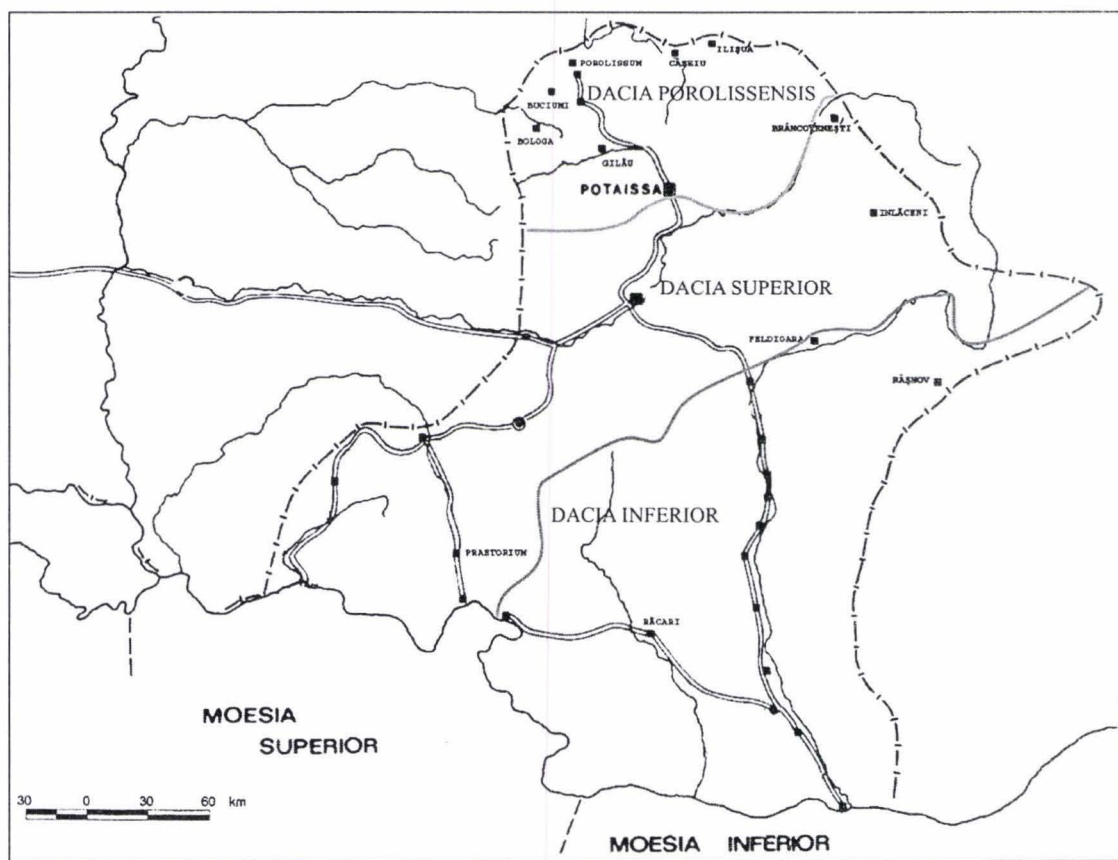


Fig. 3. The Roman province of Dacia (after Tóth 1988, fig. 9): Forts with female related artefacts.

The distribution of the analyzed artefacts (Fig. 4) within the forts clearly shows the concentration of certain small finds in the places where the soldiers were accommodated which must be more than a coincidence. Again, due to the careless documentation of finds from the excavations of forts, the majority of objects have unknown provenance. They could have been recovered anywhere in the territory of the camp. The second largest provenance of artefacts was the barracks (Buciumi, Porolissum, Căprieu, Gilău, see Appendix) and the possible barrack or

⁴⁰ From Potaissa only some hairpins are mentioned without the precise indication of findspot (Bărbulescu 1997, Abb. 27/3).

other buildings with different destination from the *praetentura* and *retentura*. It is very interesting that the material of the barracks is the most diversified of all: this is the only place in a camp where articles related to spinning are found together with jewellery and dress accessories, proving that the presence of these objects is not just coincidental. After the barracks the second largest concentration of material can be observed in the *latus praetorii*, inside the building connected to headquarters and the officer's residence. It is known that the ban of marriage was not valid for the officers; they had the right for legal marriage even during their duty. The concentration of hairpins, beads and brooches in this area can be related hypothetically to the officer's wives or members of his households who could have lived inside the forts, as the famous Vindolanda tablets reveal. Objects were recovered in a small number from the area of the major communication gates, towers and inner roads as well that could be accidental finds or it could show a possible mobility of women within the forts. Another important fact to notice is that the category of hairpins is the only category that appears in all the spots mentioned.

Chronology of finds

As it is well known, a Roman soldier was forbidden to marry during his 25 year long duty, a ban that was suspended by Emperor Septimius Severus at the end of 2nd century or at the beginning of 3rd. Many may think that this law is the most convincing argument to forbid women to enter the camps, forgetting in the same time that a woman could enter a fort not only in the status of wife but of that of a prostitute or of a member of the household. As an inscription found in Alburnus Maior reveals, an active soldier, Claudius Iulianus, from legion XIII Gemina buys a female slave, probably for his household.⁴¹ This could mean that in Dacia women were present in camps as members of the household and not necessarily only as concubine or wives. The legalization of marriage during military duty brings only a fundamental legal change of status; it does not affect the personal relationship between man and concubine, the common habits and lifestyle.

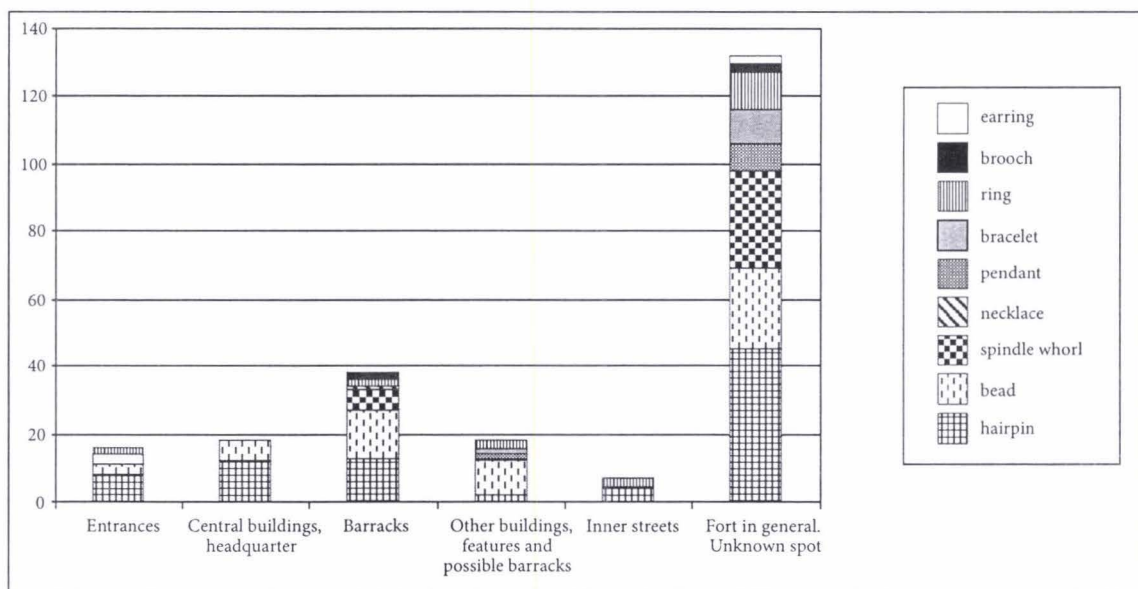


Fig. 4. Distribution of artefacts inside the forts.

⁴¹ IDR I, 38.

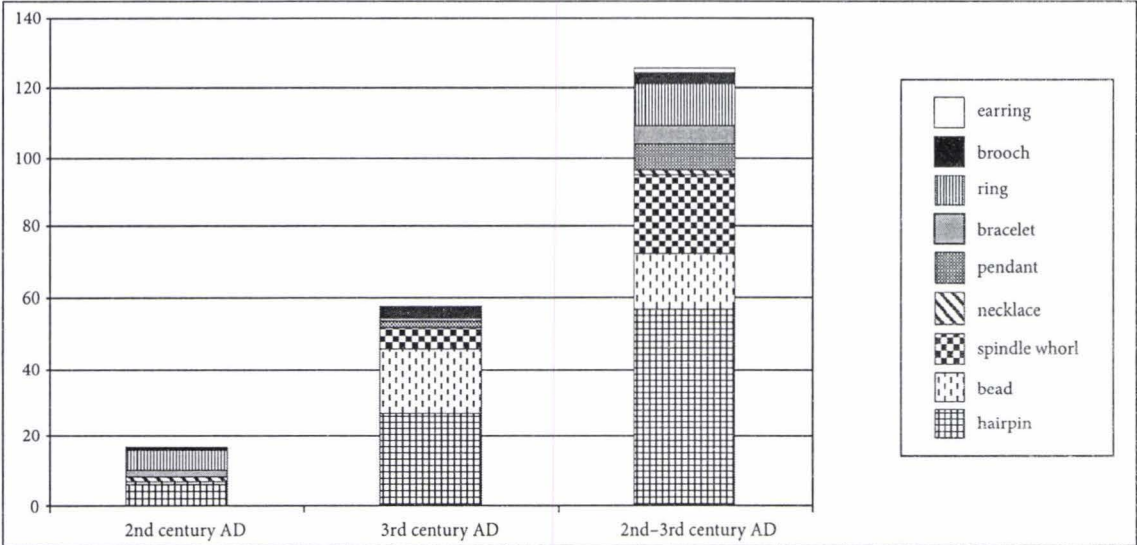


Fig. 5. Chronology of finds.

Nevertheless we tried to separate the analyzed material into chronological sequences to observe if there is any kind of concentration of small finds in any of the above mentioned periods (Fig. 5). The result proved our belief that in the case of Dacia these chronological sequences have no importance in clarifying the situation.

The majority of the studied objects are generally dated to the 2nd–3rd century that indicates that the archaeological contexts were unknown, or there was no dating element that would have put the archaeological context in chronological sequence. This means that these objects could have belonged with equal chances to both centuries. The presence of objects dated to the 2nd century is not so considerable comparing to the 3rd century where a bigger amount of objects belonged to. The predominance of objects from the 3rd century reflects rather the general tendency of reconstruction works in the Roman forts⁴² and its better research than the right of soldier to marry. We can observe that the majority of the finds from the 2nd century are hairpins that have the biggest period of usage among the other categories, so their dating on the basis of typology is impossible. The situation of the brooches is quite different; they are dated usually by typology⁴³ and not on the basis of their archaeological contexts. This leads to the situation where the context is dated through the object. The danger of these typological chronologies is that it excludes the very simple fact that even a brooch affected strongly by the changing fashion trends, could have had a longer usage time.

Case of study: the auxiliary fort from Buciumi

As I already mentioned, most auxiliary forts from Dacia suffer from poor documentation which, in some case, are almost inexistent. Under these conditions it is very hard to follow the distribution pattern of small finds within a fort and to gain relevant pieces of information. From the published reports I chose the auxiliary fort from Buciumi because only this fort allowed establishing some major observations concerning the subject of this paper. It also should be

⁴² Chirilă *et al.* 1972, 14–32 (Buciumi); Isac 2003 (Cășeu).
⁴³ It is the case of the brooches coming from Răcari (Bondoc–Gudea 2009, 267, nr. 1029, 271, nr.1053, 1056), or of those from Gherla (Protase *et al.* 2008, 72, nr. 1, 3).

mentioned, that the camp from Buciumi is one of the few camps from Dacia where barracks have been excavated in their entirety and the finds were recorded with their exact findspots.

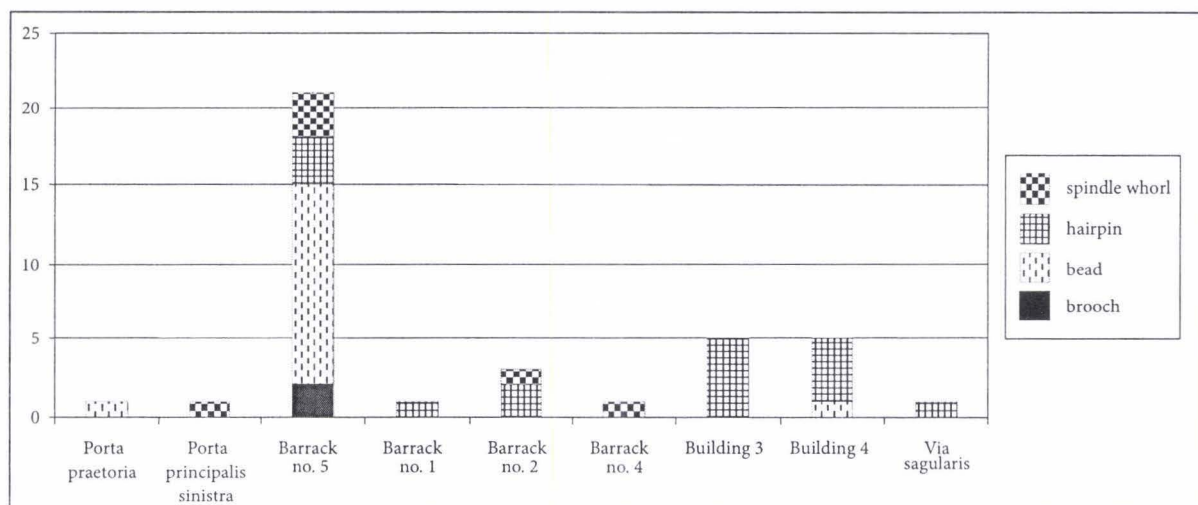


Fig. 6. Distribution of female related artefacts inside the camp.

The not so numerous artefacts, dated mostly to the 3rd century AD, related to women have a very interesting distribution pattern (Fig. 6; Pl. 6). It is striking that the majority of the objects is concentrated in the area of the barracks, especially in barrack no. 5.⁴⁴ This large concentration of objects reflects that possibly the main activities of women were linked to this place. Another considerable amount of these artefacts can be found in the *latus praetorii dextrum*, in the buildings related to the officer's accommodation,⁴⁵ which could have belonged to women from the officer's entourage. The rest of the objects were found in the communication area of the fort, in the tower of the entrance gates (*porta praetorian*,⁴⁶ *porta principalis sinistra*⁴⁷) and on *via praetoria*⁴⁸ and *via sagularis*.⁴⁹

Most of the artefacts connected to women were found within barrack no. 5 (Pl. 4/1). This archaeological feature is very interesting for several reasons. This construction dated to the 3rd century AD, having four fireplaces identified among waste material refers to multiple workshop activities (bronze working, iron working, bone working).⁵⁰ It raises the question whether this barrack was used for accommodation purposes, or in fact it was a workshop for producing articles that satisfied the inner demands of the troops. All the categories of objects related to women coming from this fort meet here inside the barrack. We find here articles of jewellery (especially glass beads, Pl. 4/5–6 and hairpins, Pl. 4/7–8), dress accessories (brooches, Pl. 4/2–3) as well as objects connected to textile manufacturing (spindle whorls, Pl. 4/4).⁵¹

The association of spindle whorls with brooches and jewellery articles would be too much of a coincidence to regard the former as simply products of a local workshop as N. Gudea

⁴⁴ Chirilă et al. 1972, 61, nr. 2, 3, 5; 88, nr. 8; 89, nr. 12; 90–91, nr. 1–12; 91, nr. 15; 92, nr. 1, 6, 9, 6.

⁴⁵ Chirilă et al. 1972, 91, nr. 2, 7, 9, 1, 16; 92, nr. 5, 8, 10.

⁴⁶ This spot is represented only by a bead, Chirilă et al. 1972, 91, nr. 17, Taf. IX/61.

⁴⁷ Only a spindle whorl was recovered from this spot, Chirilă et al. 1972, 61, nr. 1, Taf. CXIX/2.

⁴⁸ Chirilă et al. 1972, 92, nr. 3., Taf. C/2.

⁴⁹ Gudea–Bajusz 1991, 97, nr. 98.12, Pl. XII/12.

⁵⁰ Chirilă et al. 1972, 124; Gudea 1997, 29, 70–71.

⁵¹ Chirilă et al. 1972, 90–91, nr. 1–12, 15, Taf. XCVII/1–12; XCVIII/2 (glass beads); 92, nr. 1, Taf. XCIX; nr 6, Taf. C/5; nr. 2, Taf. CII/2 (hairpins); 88, nr. 8; Taf. XCII/4; 89, nr. 12, Taf. XCII/4 (brooches); 61, nr. 2, 3, 5, Taf. CXIX, 3, 4 (spindle whorls).

and D. Bondoc sustain in the case of the spindle whorls from Răcari.⁵² The brooches recovered here are the typical Norican-Pannonian brooch types that appear on funerary monuments associated with women, as an element of their dress. It is very interesting that hairpins, as the most popular and most numerous artefacts, are represented only by two examples. This excludes the hypothesis that hairpins made of bone would be the products of the bone working workshop from this building. The waste material and debris reflects that the bone workshop produced different kind of handles and gaming pieces.⁵³ The concentration of artefacts related to women in this barrack could indicate that this place could have been the scene of stable working activities where women could have been employed in textile manufacturing.

Another concentration of artefacts of female character can be observed in two other buildings from the *latus praetorii dextra*. By its size and location next to the *principia*, one of the buildings, building no. 4⁵⁴ (Pl. 5/1), having a set of rooms (some disposing of heating system) arranged around an inner court (*perystil*) could have functioned as *praetorium*. This building dated to the 3rd century AD has a concentration of hairpins (Pl. 5/8–11) and a bead (Pl. 5/7) especially in room P.⁵⁵ If we accept that officers were allowed to marry even before Septimius Severus' edict and they lived together with their families, these objects hypothetically could have belonged to the wives and other female person of the commander's household.

Building no. 3 (Pl. 5/1), which was added later to one of the corner of *praetorium*, on the basis of the heating system and waterproof isolating layer revealed in the rooms, was interpreted by N. Gudea as a possible bath of commanders' use.⁵⁶ Just like in building no. 4, sets of hairpins (Pl. 5/2–6) were recovered within.⁵⁷ The variety of hairpin types from these two buildings comparing with hairpins coming from barracks does not indicate, as we believe, a larger concentration of female presence. They could reflect rather a long termed residency of their users.

As we can observe the distribution pattern of hairpins (Pl. 5/12), we can state that these artefacts were the most wide-spread and most used artefacts. It is noticeable that they are concentrated in the area where women are usually attested in forts everywhere in the Empire: barracks (B1: Pl. 4/9–10; B2: Pl. 4/11–13⁵⁸) and buildings related to headquarter. Their little number in the inner streets (Pl. 4/14–17) and major entrance gates either refer to the mobility of women in a fort or they are just purely coincidental.

The distribution area of spindle whorls is much more restricted (Pl. 5/13). They appear mostly in barracks (B2, B4, B5), especially in barrack no. 5 where, as already mentioned, could be related to workshop activity. Only one item was recovered from *porta principalis sinistra* (Pl. 4/20–21).⁵⁹ Whether women from this fort were working for production purpose or they were just practicing their socially imposed tasks, cannot be decided.

⁵² Bondoc–Gudea 2009, 196.

⁵³ Chirilă *et al.* 1972, Taf. CXX/4–7; CXXI/1–6.

⁵⁴ Chirilă *et al.* 1972, 24–27, Abb. 3. In the more recent but brief monograph of the fort from Buciumi N. Gudea refers to this building as to Building no. 3 instead of Building no. 4 used in the former mentioned monograph (Gudea 1997, 48–49, Abb. 8).

⁵⁵ Chirilă *et al.* 1972, 92, nr. 5, 8, 10, Taf. C/4, 7, 9 (hairpin); 91, nr. 16, Taf. XCVIII/4 (bead).

⁵⁶ Chirilă *et al.* 1972, 31, Abb. 52; Gudea 1997, 59.

⁵⁷ Chirilă *et al.* 1972, 92, nr. 2, 7, 9, Taf. C/1, 6, 8; nr. 1, Taf. CII/1; Gudea–Bajusz 1991, 99, nr. 124.1, pl. XVII/1.

⁵⁸ Gudea–Bajusz 1991, 92, nr. 27.8, 28.9, 45.26, pl. IV/8–9; V/26.

⁵⁹ Chirilă *et al.* 1972, 61, nr. 1–7, Taf. CXIX/2.

Beads from this site (Pl. 6/2) appear only in barrack no. 5 in the building of *praetorium* and in *porta praetoria* (Pl. 4/18–19; 5/7).⁶⁰ The large number of beads from barrack no. 5 can be explained by the find consisting of a necklace of 12 glass beads. This find shows clearly that these beads were rather used as jewellery and not as different decorating elements of dresses or of other issues.

Typically female brooches are in the smallest number among these special artefacts (Pl. 6/3). The two examples were all recovered from barrack no. 5.⁶¹ The small number of brooches of these types in Buciumi and in other forts (Appendix) shows that these brooches represented the typical accessory of women dress comparing with the other types found in big numbers and which can be related to the military costume. These brooch types are generally dated to the 2nd century AD and they are known as typical accessories of the native Celtic population from Pannonia and Noricum.⁶² The fact that they were recovered from a building dated to the 3rd century shows that different types have a much longer period of use as it is believed.

* * *

The presence of artefacts related to women in several forts in Dacia, even in a small number or with unknown provenance is not coincidental and I believe that they can be an indicator of female presence within the camp. Though the 'sexing' of artefacts is very subjective and many types of objects could have been used by both sexes, the concentration of these artefacts in the area of barracks and buildings considered as officers' residence in most of the cases is too regular to be neglected. As shown by the example of Buciumi the distribution pattern of these objects could provide a range of information, even if their demonstration or control is impossible.

The positivistic manner of archaeological research, the careless documentation of finds and features, the unbreakable position of some clichés based on the one-sided interpretation of ancient sources make the research of gender very difficult in Romania. For better results in gender research traditional patterns and concepts related to relationship, chronology, functionality of objects, gender based tasks should be revised and reinterpreted.

⁶⁰ Chirilă *et al.* 1972, 90–91, 764, nr. 1–12, 15–16, 61, Taf. IX/61; XCVIII/4.

⁶¹ Chirilă *et al.* 1972, 88, nr. 8, Taf. XCII/4; 89, nr. 12, Taf. XCIII/4.

⁶² Cociş 2008, 161.

APPENDIX

Repertory of female related artefacts in the forts from Dacia

Spot	Fort	No. of object	Object type	Chronology	Bibliography
Entrances					
<i>porta praetoria</i>	Cășeiu	1	hairpin	2 nd –3 rd c.	Isac 1999, 764, no. 61, Taf. IX/61.
	Buciumi	1	bead	3 rd c.	Chirilă <i>et al.</i> 1972, 91, no. 17, Taf. XCVIII/3.
	Porolissum	2	hairpin	3 rd c.	Gudea–Bajusz 1991, 93, no. 52.33, pl. VI/33; 102, no. 146.
<i>porta principalis dextra</i>	Cășeiu (NW tower)	1	hairpin	2 nd –3 rd c.	Isac 1999, 763, no. 45, Taf. VII/45.
	Gilău	1	hairpin	3 rd c.	Isac 1999, 762, no. 43, Taf. VII/43.
	Ilișua	2	hairpin	1/2 of 3 rd c.	Isac–Gaiu 2006, 427, no. 37, pl. 4/37; 428, no. 44, pl. 4/44.
<i>porta principalis sinistra</i>	Buciumi	1	spindle whorl	3 rd c.	Chirilă <i>et al.</i> 1972, 61, no. 1, Taf. CXIX/2.
N tower	Feldioara	1	hairpin	2 nd –3 rd c.	Gudea 2008, 230, no. 4, Taf. LXXI/4.
		2	spindle whorl	2 nd –3 rd c.	Gudea 2008, 173, no. 2–3, pl. XXIX/2–3.
Tower	Feldioara	2	bead	2 nd –3 rd c.	Gudea 2008, 174, no. 9, 10, pl. XXIX/8, 9.
NW tower	Brâncovenești	1	ring	2 nd –3 rd c.	Protase–Zrinyi 1994, 128, no. 3; pl. LIV/3.
Civil buildings, headquarter					
<i>principia</i>	Gilău	1	bead	2 nd –3 rd c.	Isac 1999, no. 32, pl. VI/32.
<i>praetorium</i>	Cășeiu	5	bead	2/2 of 3 rd c.	Isac 1999, 761, no. 23–25, 27–28, Taf. V/23–28.
		1	hairpin	2 nd –3 rd c.	Isac 1999, 764, no. 68, Taf. X/68.
		1	hairpin	2 nd –3 rd c.	Isac 1999, 764, no. 60, Taf. IX/60.
<i>praetorium</i> (Building 4)	Buciumi	4	hairpin	3 rd c.	Chirilă <i>et al.</i> 1972, 92, no. 4, 5, 8, 10, Taf. C/3, 4, 7, 9.
		1	bead	3 rd c.	Chirilă <i>et al.</i> 1972, 91, no. 16, Taf. XCVIII/4.
<i>latus dextrum</i>	Porolissum	1	brooch	2 nd c.	Gudea <i>et al.</i> 2001, 80, no. 33, pl. V/33.
<i>praetorium</i> (room d)	Ilișua	1	hairpin	1/2 of 3 rd c.	Isac–Gaiu 2006, 427, no. 41, pl. 4/41.
	Porolissum	1	hairpin	3 rd c.	Gudea–Bajusz 1991, 95, no. 79.7, pl. IX/7.
Building 3 (bath)	Buciumi	5	hairpin	3 rd c.	Chirilă <i>et al.</i> 1972, 92, no. 2, 7, 9, 1, Taf. C/1, 6, 8; CII/1; Gudea–Bajusz 1991, 99, no. 124.1, Pl. XVII/1.
Building 3 (<i>mithraeum</i> , <i>aerarium</i> ?)	Porolissum	1	hairpin	3 rd c.	Gudea–Bajusz 1991, 93, no. 49.30, Pl. VII/30.
Barracks					
Barrack	Bologa	1	brooch	1/2 of 2 nd c.	Gudea–Cociș 1995, 52, no. 2, Pl. I/2.
Barrack no. 5	Buciumi	3	hairpin	3 rd c.	Chirilă <i>et al.</i> 1972, 92, no. 1, 6, 2, Taf. XCIX/1; C/5; CII/2.
		13	bead	3 rd c.	Chirilă <i>et al.</i> 1972, 90, no. 1–12, Taf. XCVII/1–12, 91; no. 15, Taf. XCVIII/2.
		3	spindle whorl	3 rd c.	Chirilă <i>et al.</i> 1972, 61, no. 2, 3, 5, Taf. CXIX/3, 4.
		2	brooch	3 rd c.	Chirilă <i>et al.</i> 1972, 88, no. 8, Taf. XCII/4; 89, no. 12, Taf. XCIII/4.

Spot	Fort	No. of object	Object type	Chronology	Bibliography
Barrack no. 1	Buciumi	1	hairpin	3 rd c.	Gudea-Bajusz 1991, 92, no. 28.9, pl. IV/9.
	Bologa	1	necklace	2 nd –3 rd c.	Gudea 1973, 127, fig. 21/4.
	Feldioara	1	spindle whorl	2 nd –3 rd c.	Gudea 2008, 174, no. 4, pl. XXIX/3.
		1	pendant	2 nd –3 rd c.	Gudea 2008, 221, no. 3, pl. LXVII/ 3.
	Ilișua	3	hairpin	mid 2 nd c.	Isac-Gaiu 2006, 427, no. 39, 40, pl. 4/39–40; 429, no. 53, pl. 5/53.
Barrack no. 2	Buciumi	1	spindle whorl	3 rd c.	Chirilă <i>et al.</i> 1972, 61, no. 6.
		2	hairpin	3 rd c.	Gudea-Bajusz 1991, 92, no. 27.8, pl. IV/8; 93, no. 45.26, pl. V/26.
Barrack no. 4	Ilișua	1	hairpin	beginning of 2 nd c.	Isac-Gaiu 2006, 428, no. 46, pl. 5/46.
Barrack no. 6	Buciumi	1	spindle whorl	3 rd c.	Chirilă <i>et al.</i> 1972, 61, no. 7.
	Ilișua	1	hairpin	beginning of 2 nd c.	Isac-Gaiu 2006, 426, no. 29, pl. 2/29.
<i>praetentura dextra</i> <i>retentura sinistra</i>		1	hairpin	1/2 of 3 rd c.	Isac-Gaiu 2006, 428, no. 43, pl. 4/43.
	Cășeu	1	ring	1/2 of 2 nd c.	Isac 1999, 760, no. 13, Taf. II/13.
	Cășeu	1	bead	2 nd –3 rd c.	Isac, 761, no. 23, Taf. V/23.
		1	hairpin	2 nd –3 rd c.	Isac 1999, 763 no. 49, Taf. VIII/49.
	Gilău	1	ring	2/2 of 2 nd c.	Isac 1999, 760, no. 10, Taf. II/10.
Other buildings, features and possible barracks					
“Building A” (<i>praetentura sinistra</i>)	Gilău	1	ring	106–117/118	Isac 1999, 760, no. 12, Taf. II/12.
		1	ring	2/2 of 2 nd c.	Isac 1999, 760, no. 14, Taf. II/14.
		1	pendant	2 nd –3 rd c.	Isac 1999, 762, no. 40, Taf. VI/40.
		1	hairpin	2 nd –3 rd c.	Isac 1999, 763, no. 50, Taf. VIII/50.
<i>praetentura sinistra</i>	Cășeu	1	necklace	1/2 of 2 nd c.	Isac 1999, 761, no. 21, Taf. V/21.
Water tank	Porolissum	2	hairpin	3 rd c.	Gudea-Bajusz 1991, 93, no. 47.29, pl. VI/29; no. 52–4.
Building 9 (<i>fabrica</i> ?)	Porolissum	2	hairpin	3 rd c.	Gudea-Bajusz 1991, 93, no. 54–55.
Building 5–7	Porolissum	1	brooch	2 nd c.	Gudea <i>et al.</i> 2001, 80, no. 34, pl. V/34.
SIII	Cășeu	1	bracelet	3 rd c.	Isac 1999, 760, no. 16, Taf. III/16.
SXX	Cășeu	1	hairpin	2 nd –3 rd c.	Isac 1999, 764, no. 62, Taf. IX/62.
SXIX, first layer of big earthen fort	Gilău	1	bracelet	117/118–2 nd c.	Isac 1999, 761, no. 20, Taf. IV/20.
SXIX	Gilău	1	hairpin	2 nd –3 rd c.	Isac 1999, 763, no. 52, Taf. VIII/52.
SXVII	Gilău	2	hairpin	2 nd –3 rd c.	Isac 1999, 763, no. 56, 764, no. 59, Taf. IX/56, 59.
		2	bead	2 nd –3 rd c.	Gudea 2008, 174, no. 9–10, pl. XXIX/9–10.
waste pit (<i>latus praetorii dextrum</i>)	Porolissum	1	hairpin	3 rd c.	Gudea-Bajusz 1991, 93, no. 47.28.
Inner roads					
Via sagularis	Buciumi	1	hairpin	3 rd c.	Gudea-Bajusz 1991, 97, no. 98.12, pl. XII/12.
(of the big fort)	Ilișua	1	hairpin	2/2 of 2 nd c.	Isac-Gaiu 2006, 426, no. 32, pl. 3, 32.
	Gilău	1	pendant	3 rd c.	Isac 1999, 762, no. 37, Taf. VI/37.

Spot	Fort	No. of object	Object type	Chronology	Bibliography
via principalis	Feldioara	1	hairpin	2 nd -3 rd c.	Gudea 2008, 225, no. 3, Taf. LXIX/3.
	Porolissum	1	hairpin	3 rd c.	Gudea-Bajusz 1991, 102, no. 147.
	Gilău	1	ring	1/2 of 2 nd c.	Isac 1999, 760, no. 9, Taf. II/9.
via praetoria		1	ring	2/2 of 2 nd c.	Isac 1999, 760, no. 11, Taf. II/11.
	Buciumi	1	hairpin	3 rd c.	Chirilă <i>et al.</i> 1972, 92, no. 3, Taf. C/2.
Fort in general					
	Porolissum	1	hairpin	2 nd -3 rd c.	Gudea-Bajusz 1991, 102, no. 140-4, pl. XIX/4.
	Cășeiu	1	bracelet	2 nd -3 rd c.	Isac 1999, 761, no. 19, Taf. IV/19.
		2	hairpin	2 nd -3 rd c.	Isac 1999, 763, no. 48, Taf. VIII/48, 764, no. 63, Taf. IX/63.
	Gilău	1	pendant	2 nd -3 rd c.	Isac 1999, 762, no. 41, Taf. VI/41.
		1	bracelet	2/2 of 2 nd c.	Isac 1999, 760, no. 15, Taf. II/15.
		1	bracelet	2 nd -3 rd c.	Isac 1999, 760, no. 17, Taf. III/17.
		2	bead	2 nd -3 rd c.	Isac 1999, 762, no. 31, 36, Taf. V/31; Taf. VI/36.
		1	pendant	3 rd c.	Isac 1999, 762, no. 42, Taf. VI/42.
		1	pendant	2 nd -3 rd c.	Isac 1999, 762, no. 39, Taf. VI/39.
		7	hairpin	2 nd -3 rd c.	Isac 1999, 763, no. 51-52, Taf. VIII/51-52; 764, no. 64, 65, 67, 765, no. 69, 70; Taf. X/64, 65, 67, 69, 70.
	Gherla	15	hairpin	3 rd c.	Protase <i>et al.</i> 2008, 88, no. 2-6, pl. XLII/2-6.; 92-93, 1-7; pl. LV/1-7; LVI/1-2.
		4	ring	2 nd -3 rd c.	Protase <i>et al.</i> 2008, 88, no. 3, pl. XLIII/3; 107, 3 rings without numbers.
		1	earring	2 nd -3 rd c.	Potase <i>et al.</i> 2008, 106, no. 2, pl. LXXXII, 2.
		1	bracelet	2 nd -3 rd c.	Protase <i>et al.</i> 2008, 106, without number.
		1	brooch	end of 2 nd c.	Protase <i>et al.</i> 2008, 72, no. 1, pl. X/1.
		1	brooch	3/4 of 2 nd c.-mid of 3 rd c.	Protase <i>et al.</i> 2008, 72, no. 3, pl. X/3.
	Ilișua	3	hairpin	2 nd -3 rd c.	Isac-Gaiu 2006, 427, no. 36, 38, 428, no. 45, pl. 4/36, 38, 45.
		5	spindle whorl	2 nd -3 rd c.	Protase <i>et al.</i> 1997, passim, Pl. LVII/5-8, 11.
		3	pendant	2 nd -3 rd c.	Protase <i>et al.</i> 1997, passim, pl. LXXXI/15, 20, 21.
		4	ring	2 nd -3 rd c.	Isac-Gaiu 2006, 424, no. 7-8; 425, no. 9-10, pl. 1/7-10.
		14	bead	2 nd -3 rd c.	Isac-Gaiu 2006, 425-426, no. 13-26, pl. 2/13-26.
	Potaissa	1	hairpin	2 nd -3 rd c.	Bărbulescu 1997, Abb. 27/3.
	Inlăceni	2	spindle whorl	2 nd -3 rd c.	Gudea 1979, 188, no. 1-2; pl. XI/1-2.
		2	hairpin	2 nd -3 rd c.	Gudea 1979, 199, no. 1-2, pl. XXIV/8-9.
	Brâncovenești	2	hairpin	2 nd -3 rd c.	Protase-Zrínyi 1994, 130, no. 2, pl. LVIII/2; LIVa/7.
		1	spindle whorl	2 nd -3 rd c.	Protase-Zrínyi 1994, passim, pl. LIVa/1.
		3	ring	2 nd -3 rd c.	Protase-Zrínyi 1994, 128, no. 2, passim, pl. LIV/2; pl. LIVa/3, 6.

Spot	Fort	No. of object	Object type	Chronology	Bibliography
	Feldioara	1	hairpin	2 nd –3 rd c.	Gudea–Bajusz 1991, 100, no. 132.3; pl. XVIII/3.
	Râșnov	3	hairpin	2 nd –3 rd c.	Gudea–Bajusz 1991, 90, no. 7.7, pl. II/7, 95, no. 70.2, pl. VIII/2; 101, no. 134.5; pl. XVIII/5.
	Răcari	3	hairpin	2 nd –3 rd c.	Bondoc–Gudea 2009, 274, no. 1094–1096, pl. CLV/1094–1096.
		6	bracelet	2 nd –3 rd c.	Bondoc–Gudea 2009, 276, no. 1102, pl. CLVI/1102; 279, no. 1125–1129, pl. CLIX/1125–1129.
		7	bead	2 nd –3 rd c.	Bondoc–Gudea 2009, 195, no. 409, pl. LXXXII/409; 279, no. 1130; 280, no. 1131–1135; pl. CLX/1130–1132; CLX/1133–1135.
		1	bead	1/2 of 2 nd c.	Bondoc–Gudea 2009, 195, no. 408, pl. LXXXII/408.
		21	spindle whorl	2 nd –3 rd c.	Bondoc–Gudea 2009, 196–197, no. 413–426, pl. LXXXII/413–418; LXXXIII/419–426.
		1	brooch	end of 2 nd c.–1/2 of 3 rd c.	Bondoc–Gudea 2009, 270, no. 1053, pl. CL/1053.
		1	brooch	1/2 of 3 rd c.	Bondoc–Gudea 2009, 271, no. 1056, pl. CL/1056.
		1	pendant	2 nd –3 rd c.	Bondoc–Gudea 2009, 218, no. 580, pl. CIII/580.
	Praetorium	1	pendant	2 nd –3 rd c.	Macrea <i>et al.</i> 1993, 107, no. 5, pl. XXVI/5.
		6	hairpin	2 nd –3 rd c.	Macrea <i>et al.</i> 1993, 107, no. 9–14, pl. XXVI/9–14.

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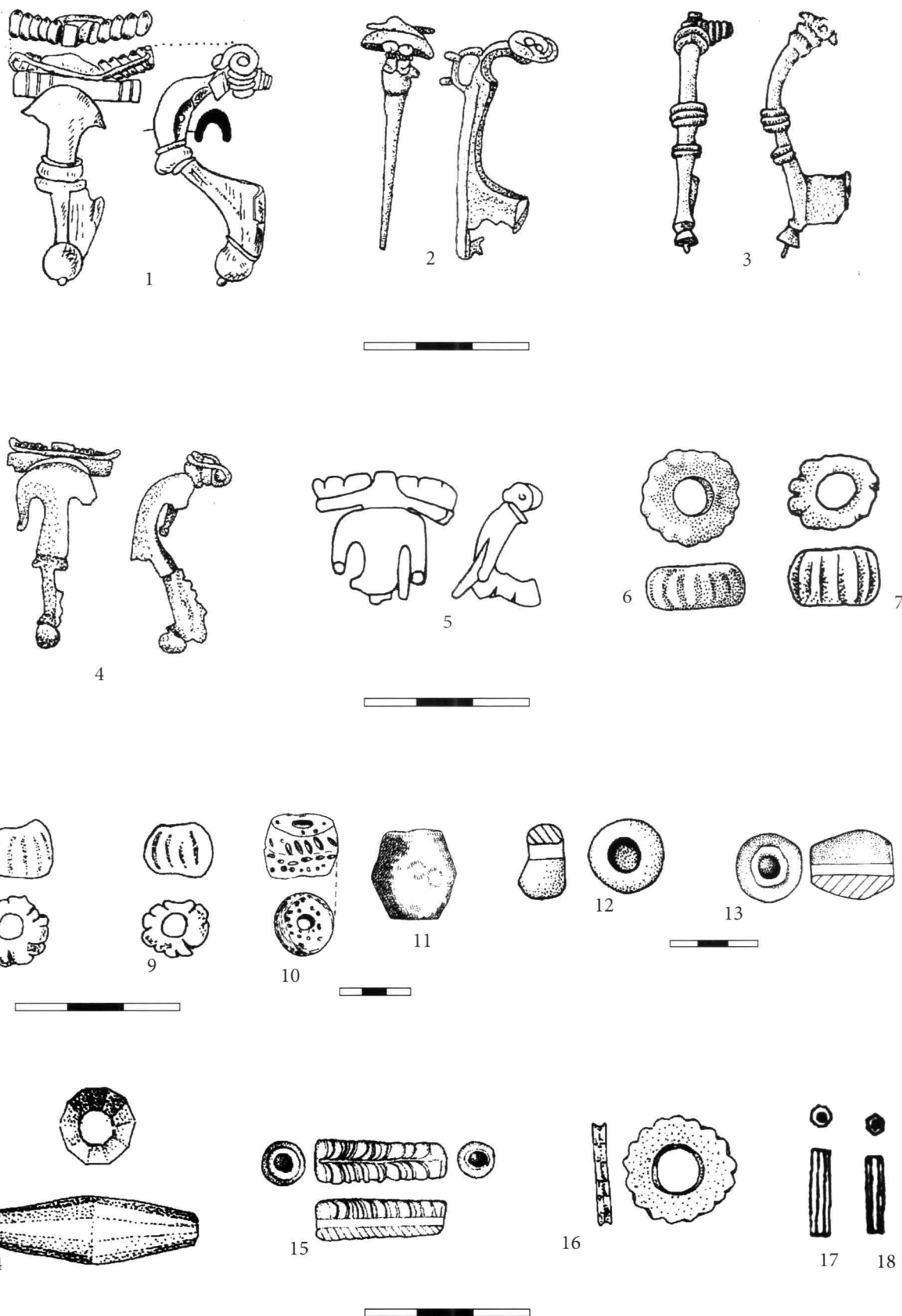


Plate 1. Brooches: 1. Buciumi; 2, 4. Gherla; 3. Bologa; 5. Porolissum.

Beads: 6-9. Căşieu, 10-11, 17-18. Feldioara; 12-13, 15. Răcari; 14, 16. Gilău.

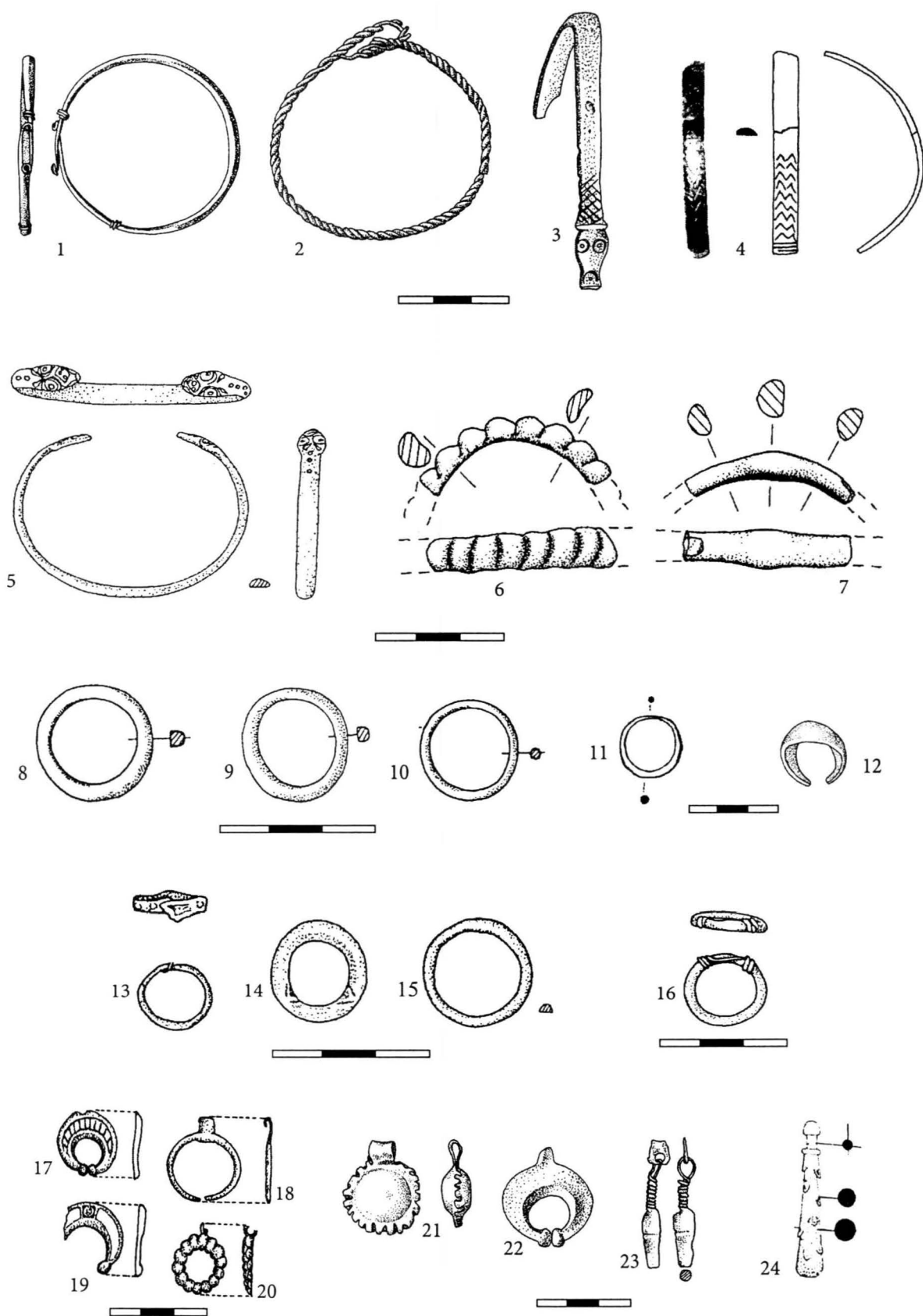


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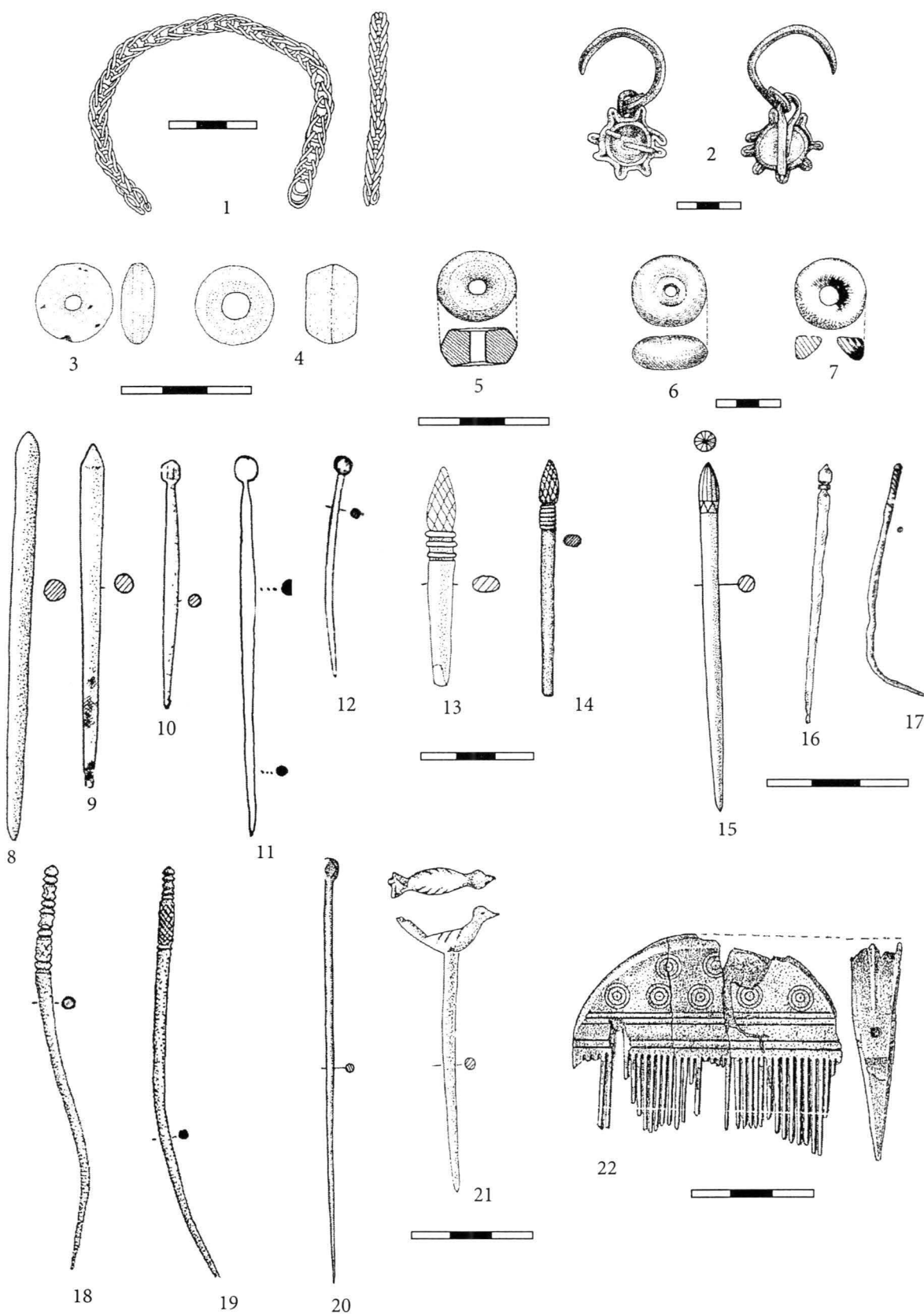


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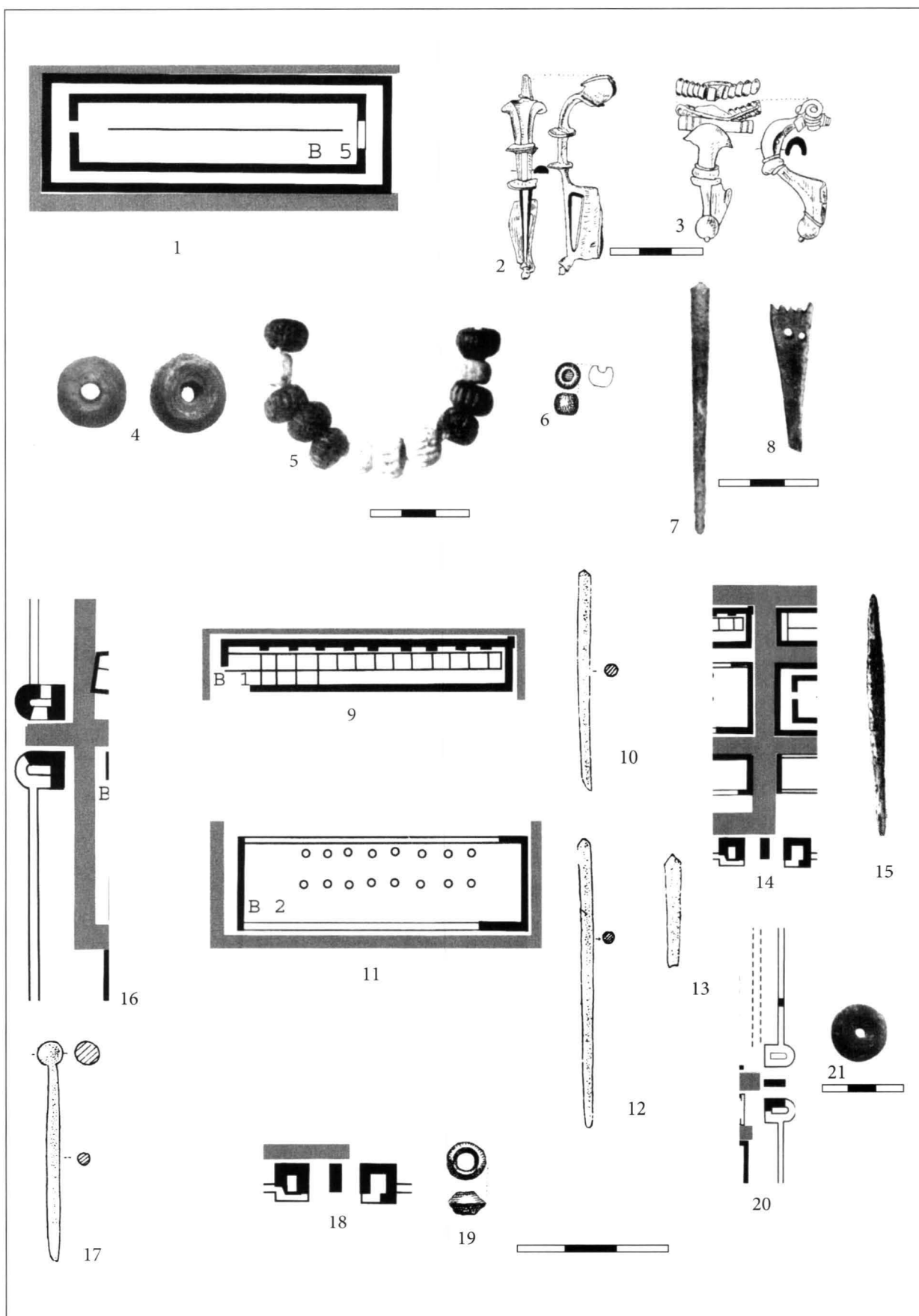
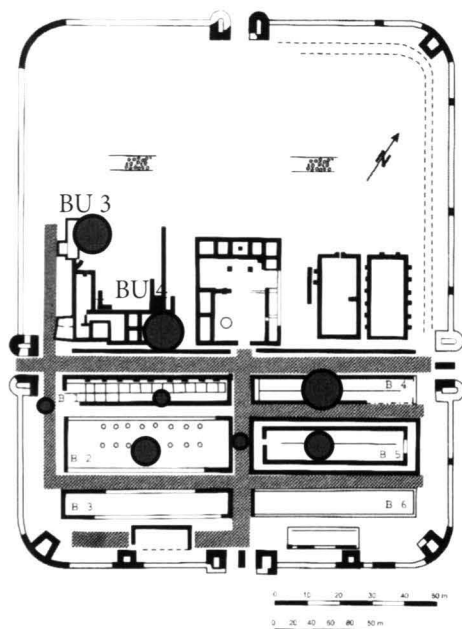
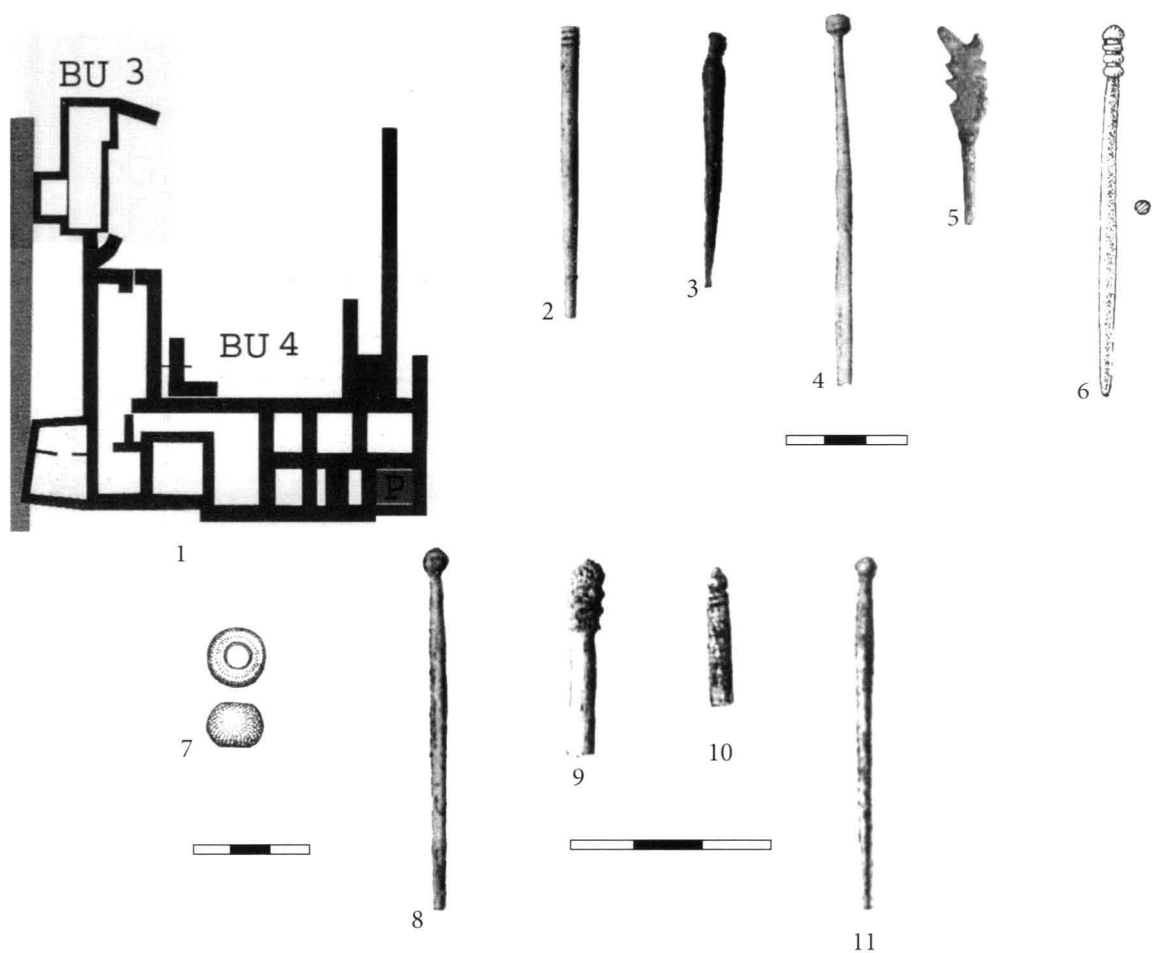
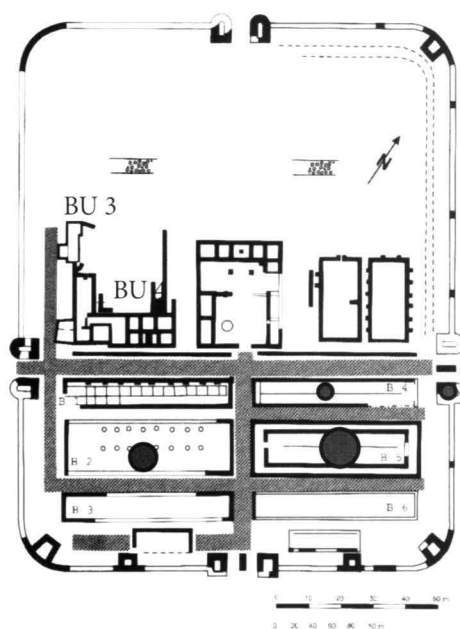


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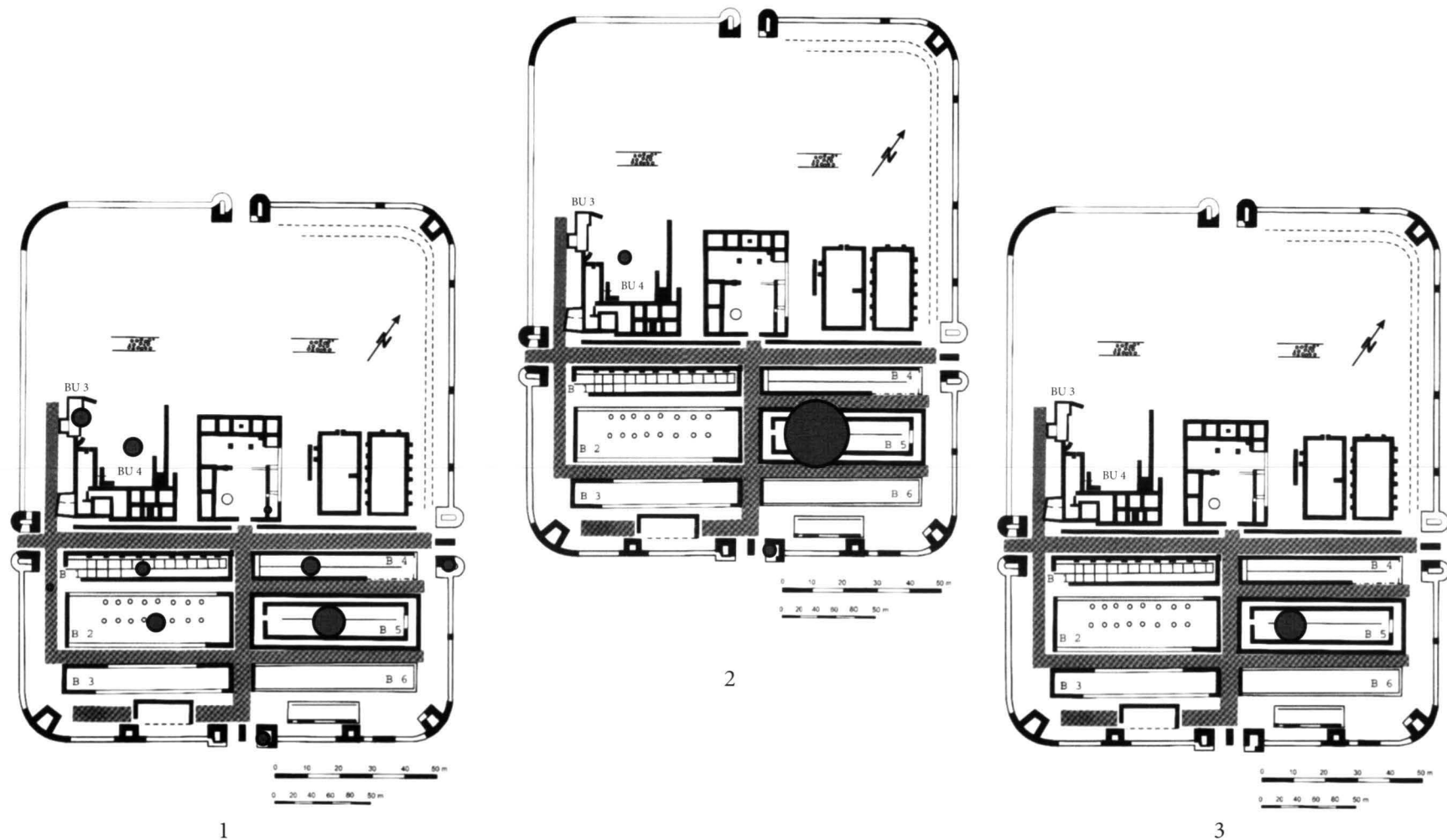


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SOME CONSIDERATIONS CONCERNING THE WEAPONS DURING THE GREAT MIGRATIONS IN THE NORTH DANUBIAN AREA (4TH–7TH CENTURIES AD)

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Keywords: barbarian weaponry, warrior graves, workshops

In terms of traditional history, types of weapons and equipment like spurs, shield *umbones*, swords and axes spread in the Roman period in northern and eastern Black Sea area. This spreading is made under the influence of the Germanic tribes of the Przeworsk, Wielbark and Luboszyce culture. This is where we can find a parallel between the evolution of weaponry and equipment used in Central Europe and those used in the eastern parts of the continent, where anyone could ultimately find certain Roman influence, explained by the presence of Roman troops at the Danube and Black Sea.¹ The problem occurs in the presence of weapons in space north of the Danube and the manufacturing technology: it is clear that many weapons discovered north of the Danube (particularly in barbaric environment) are of Roman inspiration, without being used manufacturing typically Roman techniques. Historical records emphasised clearly that Germanic weapons (mainly swords) were more advanced in technical and dimensional terms than the Roman weaponry was. It is enough to remember the fear described by Ammianus Marcellinus about the barbaric weapons effects on the Roman troops in the frequent military confrontations of the 4th century. These confrontations culminated in the Battle of Adrianople (378 AD), when the Roman army was destroyed by the Gothic Confederation: “fighting spread like wildfire, and terrified the soldiers, many of which were pierced by spears and arrows with semicircular path [...] This never repairable loss which cost more Roman life ended when dark moonless night fall”²

Also Ammianus describes the fear caused in the Roman army by long swords handled with both hands used by the Germanic warriors for cutting (ripping), not only to penetrate (like Romans did). We cannot forget that in Late Antiquity, Germanic peoples have developed techniques of melting, alloy making, welding, etc. “They knew how to make for their swords and axes special steel edge matchless until the 19th century, infinitely superior to those produced in the manufactures of the Later Roman Empire.”³ Convincing examples are the eight bands swords blades hammer-wroughted toradated, welded together, with blades that eventually did not exceed 5 mm in thickness. This is also the situation of the battle-axes, considered ‘national’ Germanic

¹ Kazanski 1994, 43.

² Ammianus Marcellinus XXX.13.

³ Musset 1965, 68.

weapons, axes, which ranged in size from the smallest (30 cm) used to be thrown against the enemy, to those who were operated with both hands because of the large size and weight.

Thus we believe that even in the burial contexts of 4th to 7th centuries the discoveries of weapons are quite frequent, in the northern area of the lower Danube, must operate with extreme caution since with small exceptions arms are which are Roman inspiration that do not mean that were created with the Roman-Byzantine technology but we are dealing imitations the forms of arms of the empire. (In the same way as the Empire has been copied the most effective weapons of the barbarians).

We will continue with the presentation (with all the necessary specification) of the main type of arms and military equipment most commonly used: spurs, *umbones* shield, swords and axes: partly they are of Roman model and (at least partly) achieved with Roman technology. Their importance in this discussion lays in the fact that their presence means an interaction between people who wore those equipments and the Empire, in the area north of the Danube.

Thus, spurs, these typical European military equipments, spread heavily in Eastern Europe at the end of 2nd century AD and the beginning of the next. Along with discoveries of Sântana de Mureș–Cernjahov cultural area, spurs are known in the late Roman age by bearers Przeworsk culture up to the civilization of Carpathian tumuli in Slavic and Balto-Slavic area and, exceptionally, in the Finnish area. The area north of the Danube spurs were found in inhumation graves from Bârlad–*Valea Seacă*,⁴ Hlincea (Iași county),⁵ and Săbăoani (Neamț county).

Shield *umbones* are present in all the warrior tombs, the most representative pieces being those from Budești (Bistrița–Năsăud County), where during the construction of the railway a sword and a damaged shield *umbo* were found. It is interesting that at the first sight the *umbo* was regarded as a helmet because of the high conical form.⁶ The *umbo* is fitted with facets, has a height of 10.5 cm, diameter 18 cm and the frame has a width of 3.5 cm provided with six catching mansions. Analogies are found in the rider tomb from Ujhartyán near Budapest. Dating may be somewhere in the 4th century AD. Note that the sword from Budești also has an analogy in the tomb from Ujhartyán. It may be considered that these objects from the tombs of riders can be linked the Gepidic presence in the area.

Another shield *umbo* was found in Mediaș, in an uncertain discovery place. It has a height of 13.5 cm, diameter: 22 cm, frame width 5 cm. It is contemporary with the first specimens from Mogoșani,⁷ Târgșor,⁸ Dolhești Mari (Suceava County), the latter not being published yet.⁹ Other sites with *umbo* discoveries are in Iași–*Nicolina*,¹⁰ and Lețcani¹¹ (Iași County).

Swords, spear tips and battle axes are also often present objects in the tomb inventory of warriors and riders. Swords have a special status in the migratory world (especially in the Germanic area) being not only attack weapon but also signs of belonging to an elite group, a symbol of the dignity of the free man. Long swords (worn on belt or on the shoulder) were kept in a wooden sheath, decorated, sometimes with marquetry of gold and silver. Most swords are,

⁴ Palade 1971, 259; Palade 1980, 407–416, 259; Petrescu 2002, 62.

⁵ Petrescu-Dâmbovița 1954, 233; Petrescu 2000, 150.

⁶ Horedt 1986, 148.

⁷ Kokowski 1993, 335.

⁸ Kazanski 1994, 478.

⁹ Kokowski 1993, 335; Kazanski 1994, 478.

¹⁰ Ioniță 1985, 30–49; Petrescu 2002, 159.

¹¹ Bloșiu 1975, 203–275; Petrescu 2002, 173.

as a form of Sarmatic and/or Roman inspiration, but keep long dimensions characteristic to Germanic weapons. Thus typical examples are the four swords from Noșlac (Alba County), with most suitable analogies from Merovingian cemeteries.¹² The wooden handle has no hilt guard. The sheath was also made of wood and only in one case was decorated with bronze plates. M. Rusu believes that the lack of clearance mid-ditch of the blade and of the hilt guard shows that swords were produced in a local workshop, after a foreign model.

An interesting piece is the sword of the warrior's tomb from Valea lui Mihai (Hungarian: Érmihályfalva, Bihor County). The *spatha* has a silver *buterola* decorated with three garnets, and an ornamental plate from the mouth of the sheath, decorated with eight garnets and *Kerbschnitt* technique shows that we are dealing with a leading combatant.¹³ Also the princely tomb at Apahida II had in inventory a *spatha* most likely a sign of the character's rank.¹⁴ Other swords whole or in fragmentary state were found in Iași–Nicolina.¹⁵

Spearheads were found in most cases together with shield *umbones*, respectively swords, being a basic piece of offensive weaponry to both the Romans and migratory populations (Ostrogoths and Visigoths frequently used long spears as cavalry equipment, habit „borrowed” from vandals). The most representative specimens were found at: Iași–Nicolina, Lectăni (Iași County),¹⁶ Reci (Covasna County),¹⁷ and Târgu Mureș (Mureș County).

Another rather common weapon during the great migrations, were the *axes*, present at almost all the peoples of Europe. In the north-Danube space beside arrowheads (which cannot be considered individual weapons), axes are the most common weapons in the inventory of graves. Such axes of different sizes were found at: Ciumbrud (Cluj County),¹⁸ Fântânele–Rât (Bistrița–Năsăud County),¹⁹ Iași–Nicolina, Hănești (Botoșani County),²⁰ Podeni (Botoșani County)²¹ and Spinoasa (Iași County).²²

Finally, we cannot conclude the presentation of the types of offensive and defensive weapons, without speaking about a unique artefact in Romania: the helmet guard from Concești (Fig. 1).²³ The artefact belongs to the so called late Roman helmets, which make their

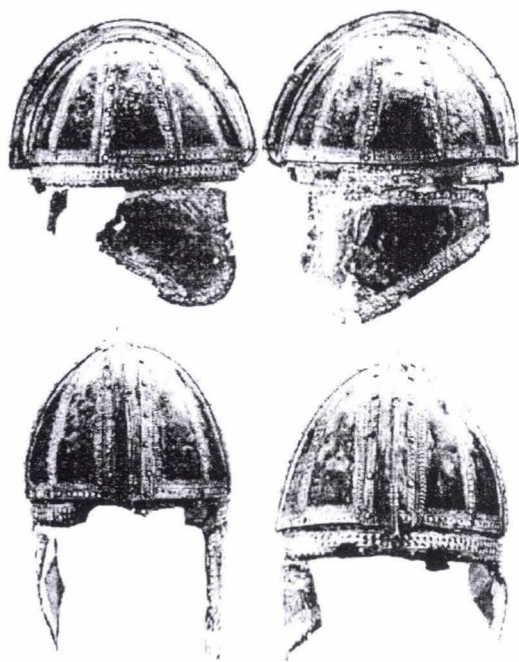


Fig. 1. The helmet from Concești.

¹² Rusu 1962, 275.

¹³ Roska 1932, 69–72; Stanciu 1997, 167–209.

¹⁴ Horedt–Protase 1972, 174–220.

¹⁵ Ioniță 1985, 35; Petrescu 2002, 159.

¹⁶ Bloșiu 1975, 203–275; Petrescu 2002, 173.

¹⁷ Székely 1969, 297–316; Cavruc 2000, 210.

¹⁸ Kokowski 1993 n.6; Kazanski 1994, 482.

¹⁹ Marinescu–Gaiu 1989, 125.

²⁰ Zaharia–Petrescu–Dâmbovița 1970, 245; Zaharia *et al.* 1993, 151–190; Petrescu 2002, 147.

²¹ Petrescu 2002, 209.

²² Zaharia–Petrescu–Dâmbovița 1970, 245.

²³ Harhoiu 1997, 50.

appearance during the reign of Constantine the Great, was made after Sasanid model. As general feature the cap is made of two parts, joined by a ridge. Unlike most of the helmets of this type, which had two parts of the calotte forged in one piece, the specimen from Concești (and those of Berkasovo, or Deurne) have their semi-calottes consisting of several parts. It seems that this type of helmet is a final stage of evolution of these late Roman helmets.

APPENDIX

Repertory of the most significant discoveries of weapons from the age of migrations (4th–7th c. AD)

1. **Apahida** (Cluj c.). A spatha in the princely grave from Apahida II. Preserved length: 40.4 cm, 4.35 cm wide and 0.35 cm thick (Protase 1972, 17; Horedt–Protase 1972, 174–220).
2. **Cluj-Cordoș** (Cluj c.). A leaf shaped spearhead (Ferenczi 1960, 193–203).
3. **Concești** (Botoșani c.). Guard helm (Gardehelm) and eagle shaped sheath part (Drăghici 1857).
4. **Bârlad–Valea Seacă** (Vaslui c.). A pair of spurs in funerary context (Palade 1971, 259–276; Palade 1980, 407–416; Petrescu 2002, 62).
5. **Budești** (Bistrița-Năsăud c.). A spade and a deteriorated *umbo* (Horedt 1986, 148; Bóna 1961, 192–203).
6. **Ciumbrud** (Cluj c.). Battleax (Kokowski 1993, n. 6; Kazanski 1994, 482).
7. **Ghenci** (Satu-Mare c.). A fragmented sarmaxas with traces of the steath. Length: 38 cm (Harhoiu 1997, 167).
8. **Dolhești Mari** (Suceava c.). Shield *umbo* (Kokowski 1993, n. 48; Kazanski 1994, 478).
9. **Fântânele–Rât** (Bistrița-Năsăud c.). Battleax discovered in funerary context (Marinescu–Gaiu 1989, 125).
10. **Hlincea** (Iași c.). Pair of spurs in a bad shape (Petrescu-Dâmbovița *et al*, 1954, 233–236; Petrescu 2002, 150).
11. **Iași–Nicolina** (Iași c.). An *umbo*, fragmented sword, spearhead and a battleaxe (Ioniță 1985, 30–49; Petrescu 2002, 159).
12. **Lețcani** (Iași c.). Spearhead (Bloșiu 1975, 203–275; Petrescu 2002, 173).
13. **Mediaș** (Sibiu c.). Shield *umbo* with unknown discovery place (Petrescu, 2002 178).
14. **Noșlac** (Alba c.). Four swords (Rusu 1962, 275).
15. **Săbăoani** (Neamț c.). A pair of spurs in funerary context (Ursachi 1994, 261–268).
16. **Reci** (Covasna c.). Spearhead (Székely 1969, 297–316; Cavruc 2000).
17. **Valea lui Mihai** (Bihor c.). A two bladed sword in funerary context (Roska 1932, 69–72; Stanciu 1997, 167–209).

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LIST OF FIGURES

Fig. 1. The helmet from Concești.

THE EARLY MEDIEVAL POTTERY FROM SÂNGEORGIU DE MUREȘ–ROMAN CATHOLIC CEMETERY (MUREȘ COUNTY)

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Keywords: early medieval pottery, early Arpadian epoch, forms, ornaments, techniques

This study regards the early medieval pottery found in the rescue excavation from the Roman Catholic Graveyard from Sângeorgiu de Mureș (Pl. 1/1) carried out in October–November 2007 and August 2009 by archaeologists from the Mureș County Museum.¹ The existence of this material is not a surprise, though this is a new topographical point on the discoveries' map. Similar findings are known so far in the proximity: *Căpâlna*² (Hu. Máriaffy kápolna), *Sub Ghera*³ (Hu. Gyéra alja), *Cimitir*, the cemetery from around the church⁴ (Hu. Temető) and *Dealul Bunii*⁵ (Hu. Buna hegy).

The site is situated east of the locality, on the right side of DN 15 (national road, Târgu Mureș–Reghin–Piatra Neamț), on a superior terrace of the Mureș river, accessible via the Graveyard street (Pl. 1/2). In the 2007 campaign, 6 sections and 4 trenches were opened, and in the following one 4 sections and 2 trenches made up the researched area (Pl. 1/3).

The early medieval material consists mainly of pottery. Most of the fragments analyzed were collected from complex G1, which occurred in the north-western corner of C1 (Pl. 1/4), and the rest of the findings belonged to the vegetation level previously affected by the agricultural works, from S1+, S2 and C3. To these we can add the 3 fragments that came from the vegetation layer from S5.

The pottery is typical for the contemporary settlements, but it is highly fragmentary. This is why the information regarding the type of modelling, the decoration, the shape and the size is incomplete. To this deficiency of data we can add the fact that out of the 22 fragments analyzed, only 13 are part of an archaeological complex and the methods used in the research process are traditional ones.

The majority of the pottery fragments were slow-turning wheel thrown, excepting two fragments (Pl. 2/5; 4/3), which were most probably fast-turning wheel thrown. The clay used was relatively well sifted, as required in the case of slow-turning wheel pottery.

¹ In 2007 the research was led by Sándor Berecki and the author of the present paper.

² Székely 1959, 187–189; Zrínyi 1976, 147; Lazăr–Opriș 1989, 91; Lazăr 1995, 212–213.

³ Székely 1959, 187–189; Zrínyi 1976, 147; Lazăr–Opriș 1989, 91; Lazăr 1995, 212.

⁴ Zrínyi 1976, 146; Lazăr–Opriș 1989, 91; Lazăr 1995, 213.

⁵ Lazăr–Opriș 1989, 97; Lazăr 1995, 211.

As tempering material less fine sand was used, mixed with small sized pebbles. Considering the size of the pebbles we can divide two groups of pottery fragments: the ones having mixed in their paste pebbles less than 1 mm large and the ones having 1 to 3 mm sized pebbles. The first group is best represented in this lot, while the second one is represented by 6 fragments only (Pl. 2/2; 3/1–5). A thorough microscopic analysis would most certainly modify these simple observations made at a first sight.⁶

A great amount of the pottery fragments were ornamented. We cannot be sure if the vessels to which the fragments belonged – the ones from the neck part (Pl. 2/4–5) or the four bottom fragments (Pl. 2/8–9 and Pl. 3/9–10) – were decorated. The three ceramic cauldron fragments lack any ornamentation (Pl. 3/2–4). The jar-vessels were most commonly decorated with straight lines, wavy lines and oblique impressions of different types, made with a comb or a pointed instrument (Pl. 4/4). We have two fragments with oblique impressions combined with bands of wavy lines or single wavy lines (Pl. 2/2; 3/7). All the ornaments are placed on the neck, on the shoulder or on the body of the vessels and were realised through incisions in the soft paste. A certain particularity presents the fragment from a pot found in S5 from 2009, which was provided with a button (Pl. 4/2). For the 10th–13th centuries in this area – and not only – we lack any observation regarding this type of buttons, which are especially familiar to the Dacian milieu.⁷ Close to the button, there is a thin V-shaped incision which could either be an accident or a decorative element.

The product resulted from the pottery making process gives us the information about the technique used to produce it. In case the firing took place in an oxidizing environment, the colour obtained is brick-red, due to the large quantity of oxygen. In a reducing atmosphere, or at low temperatures, when the paste cannot go through oxidation, or when the interval of the firing is too short, different nuances are acquired, from gray to black. An open firing can cause “fire clouds” generating gray to brick-red stains on the surface of the pot.⁸ Some of the pottery retrieved from G1 belonged to pots burned in an oxidizing environment (Pl. 3/7, 9), but most of the fragments were incompletely fired, where from we have brown to dark brown colours. From the materials collected from the vegetation stratus, the three cauldron fragments were produced in an oxidizing milieu, but apart from them, the fragments have greyish brick-red to dark brown colours.

Because of the reduced number of pot fragments, out of which not a single vessel could be completed, we cannot speak about a large diversity of shapes. Nevertheless, the jar-vessels are well represented as number, and we also have shapes like the cauldron and the bowl. The diameter of *jar-vessels* ranges between 13 and 18 cm; the rims are obliquely cut or rounded and are not provided with any handle. The bottoms that we found have a 10 cm diameter. Considering the dimensions of the rim these vessels are medium sized recipients commonly found in the households of the epoch. In the case of *cauldrons* we encounter two kinds of rims. The first one is profiled towards the exterior and has a square shape (Pl. 3/2) and the second one is profiled both outwards and inwards (Pl. 3/3). The only *bowl* was unfortunately retrieved from the vegetation

⁶ In Hungary, the microscopic analyses performed lately modified the archaeological observations regarding the tempering material used in the Arpadian epoch. The clay found on the shores of the rivers already contained impurities, and it was used as such, without any further insertions. A certain change was produced in the 12th–13th centuries, when “pebble” mixed sand was deliberately used (Simonyi 2005, 43–45).

⁷ Dacian fragments with alveolar girdle were found in this site (Berecki–Cioată 2010), as well as at the close site at Dealul Bunii (Lazăr–Opriș 1989, 95–97, fig. 3/5).

⁸ Renfrew–Bahn 1999, 320.

level of section S5. The fragment was too small to give further information about the diameter of the bowl. As suggested by the form, it had a conical shape and, similarly to the funnel, it grows larger towards the rim.

The dating of the ceramic material was established separately for G1 (section C1) and the rest of the pottery, due to the fact that this latter lot was collected from the superficial stratum, disturbed by the ploughing, though concentrated on a certain limited area (Pl. 1/3). Lacking any artefacts capable to indicate an absolute dating we were constrained to rely on the rim profiles and the ornamentation of the existing fragments of pottery. The analogies found regarded in the first place the close by situation of discoveries while the more distant analogies were used in specific cases with more precise dating.

Most of the fragments from G1 consist of jar-vessel parts. We have simple rims, outwards profiled and obliquely cut or rounded. The decorative motifs used were bands of straight lines, wavy lines, and impressions, oblique short and prolonged incisions. The best analogies are precisely in the same locality, in the place called *Sub Ghera*,⁹ 1 km south of the Roman Catholic cemetery. Also, similar shapes with oblique impressions we have in the materials found in Voivodeni–*La școală*.¹⁰

In Hungary, following the analysis of the Arpadian pottery¹¹ more attempts were made to date the various types of ornaments. Earlier it was believed that straight wide incised line – the most frequent decoration on the 13th century pottery¹² – appeared at the end of the 11th century. Afterwards, it has been proved that it was used – though lesser – in the 10th–11th centuries.¹³ The impressions and the oblique incisions were used from the 10th century to the end of the 13th century. Thus, we came to the conclusion that the wavy line bands which are common in the 10th–11th centuries can persist in later times in this case, too.

In the case of the sporadic fragments of pottery from the vegetation stratum, we find the fragments of pottery from the jar-vessels with outwards profiled, straight cut or rounded rims. The decorative elements for these vessels are oblique incisions and impressions, combined with wavy lines or strips¹⁴ with analogies at Sângeorgiu de Mureș–*Sub Ghera*.

From the two types of cauldrons,¹⁵ the square shaped one with outward profiled rim is similar to the findings from Gornești–*Spre hotar*¹⁶ and also the ones from Morești–*Cițfalău*.¹⁷ It fits in the B IV2 type proposed by A. Ioniță, based on the cauldrons found at Bratei.¹⁸ The second type, characterized by rounded and both outward and inward profiled rim has analogies

⁹ The archaeological material comes from preventive excavations from 2007 and 2009, lead by Sándor Berecki and the author of this article, deposited at the Mureș County Museum, currently under study.

¹⁰ In spite of the fact that two reports on the excavations were published, the author does not make any reference to the early medieval material (Petică 1978, 79–81; Petică 1979, 127–133).

¹¹ A chronology for the Arpadian epoch was proposed by M. Takács (1993, 448–449). Thus, the 10th century till the end of the 11th century corresponds to the early Arpadian epoch. The period from the end of the 11th till the beginning of the 13th century is the middle Arpadian epoch and the beginning of the 13th century till the beginning of the 14th century is the late Arpadian epoch.

¹² Parádi 1959, 44.

¹³ Takács 1993, 449; Istvánovics 2003, 260.

¹⁴ Because of the fragmentary preservation we are unable to distinguish whether it is a single wavy line or a stripe of wavy lines.

¹⁵ For the types, the chronology and the spread of the cauldrons see: Takács 1986.

¹⁶ Very selectively published material by Petică–Zrínyi 2000, 331–374.

¹⁷ Horedt 1984, 25–26, Abb. 12/2; 13/2.

¹⁸ Ioniță 2009, 32–33, Pl. 273/B IV2.

at Sângeorgiu de Mureș–*Dealul bunii*¹⁹ and Lechința de Mureș–*Săliște*.²⁰ The first type of rim corresponds to the “a” type submitted by M. Takács for the Little Hungarian Plain from north-western Hungary, while the second one belongs to the “b” type. In the Little Hungarian Plain region, the first type is met along the 10th–11th centuries and the latter one especially in the 11th–13th centuries.²¹

The third shape of vessel, the bowl, is comparable with discoveries from Sângeorgiu de Mureș–*Sub Ghera*, but it has wavy lines decoration. It is quite rare in the settlements. In Hungary, conical vessels similar to a flower pot appear mostly in the 10th–11th centuries.²² We find no pieces similar to the fragment with a button, in the Arpadian epoch.

There is no evident chronological difference between the two lots of pottery.²³ Taking into account the forms, the decoration and the analogies, the entire ceramic lot can be dated in the early Arpadian period.

* * *

Despite of the reduced number of pottery fragments and their extremely fragmentary state of preservation, we can formulate several conclusions. The fragments from G1 belonged preponderantly to medium sized jar-vessels and were slow turned wheel thrown. Two other type of vessels appeared in the lot of sporadic material: the ceramic cauldron and the bowl. The tempering material used was sand with less than 1 mm large pebbles and respectively with 1 to 3 mm large pebbles in the case of the large vessels, as mentioned above. The firing – with few exceptions, when it was of oxidizing type – was incomplete, of short time, and therefore the diverse colour range, from brick-red to dark brown with greyish core. The ornamentation is present only on the fragments of jar-vessels. Characteristic is the straight or wavy line stripe, the impressions and the oblique incisions. An exceptional case is the fragment with a button, never before encountered in the Arpadian epoch. The chronological sequence was established based on the shapes and the decoration, as compared to the analogies found. A serious impediment for the research was the scarcity of the material. Consequently, we can only propose a large dating, in the early Arpadian epoch.

To conclude, we would like to mention that the purpose of this study is primarily to draw attention upon a lately identified and investigated point on the map of early medieval discoveries.

¹⁹ Lazăr–Opriș 1989, 96, fig. 4/8.

²⁰ Protase *et al.* 1988, 201–202, fig. 13/9.

²¹ Takács 1993, 456–459, 478, pl. 13.

²² Wolf 2006, 51.

²³ Excepting the second type, it could have a later dating.

APPENDIX

The catalogue of the ceramic material²⁴

Feature G1 (section C1/2007)

1. Fragment from the rim and the neck of a slow-turning wheel thrown vessel, tempered with sand with small pebbles (less than 1 mm big), brown-greyish coloured, both on the outside and on the inside and with greyish core. It was ornamented with impressions made with a 6 teeth comb, obliquely, in two rows. The rim is everted and obliquely cut. BD = 14 cm, WT: 0.6 cm. Pl. 2/1.
2. Fragment from the rim, the neck and the shoulder of a slow-turning wheel thrown vessel, tempered with sand mixed with pebbles (1–3 mm), brown-greyish on the outside and light brown on the inside, with black core. At the neck level the ornamentation is made of oblique impressions. The rim is everted and obliquely cut. RD: 18 cm, WT: 0.9 cm. Pl. 2/2.
3. Fragment from a slow-turning wheel modelled vessel, small pebbles (under 1 mm) mixed sand tempered, dark-brown coloured, with black core. It was decorated with oblique impressions. The rim is everted and slightly curved. RD: 16 cm, WT: 0.9 cm. Pl. 2/3.
4. Fragment from the neck of a slow-turning wheel modelled vessel, small pebbles (under 1 mm) mixed sand tempered, light brown on the outer surface, and brown-greyish on the inner surface, with greyish core. No ornamentation. WT: 1 cm. Pl. 2/4.
5. Fragment from the neck and the shoulder of a wheel made recipient, small pebbles (under 1 mm) mixed sand tempered, brown-darkish coloured on both surfaces, with black core. No ornamentation. WT: 0.8 cm. Pl. 2/5.
6. Fragment from the wall of a slow-turning wheel thrown pot, small pebbles (under 1 mm) mixed sand tempered, light brick-red on the outside and black on the inside. Straight lines decoration, made with a 6 teeth comb. WT: 0.8 cm. Pl. 2/6.
7. Fragment from the wall of a slow-turning wheel modelled vessel, small pebbles (under 1 mm) mixed sand tempered, light brick-red coloured on the outside and dark brick-red on the inside, with greyish core. Wavy lines decoration probably made with a 5 teeth comb. WT: 0.9 cm. Pl. 2/7.
8. Fragment from the bottom of a slow-turning wheel thrown recipient, small pebbles (under 1 mm) mixed sand tempered, brown-greyish on both sides, with black core. BD: 10 cm, WT: 1.7 cm. Pl. 2/8.
9. Fragment from the bottom of a slow-turning wheel thrown recipient, small pebbles (under 1 mm) mixed sand tempered, brown-greyish on both sides, with greyish core. BD: 10 cm, WT: 0.8 cm. Pl. 2/9.
10. Fragment from the rim of a slow-turning wheel modelled recipient, small pebbles (under 1 mm) mixed sand tempered, brick-red coloured on both sides, with greyish spots at the rim level, owed to the secondary burning. Under the neck there is an oblique impression, finger made and another one, made with a 4 teeth comb. RD: 13 cm, WT: 0.7 cm. Pl. 3/7.
11. Fragment from the body of a slow-turning wheel made recipient, small pebbles (under 1 mm) mixed sand tempered, black coloured on the outside and brown-blackish on the inside. It has finger made oblique impressions as decoration. WT: 0.8 cm. Pl. 3/8.
12. Fragment from the bottom of a slow-turning wheel thrown recipient, small pebbles (under 1 mm) mixed sand tempered, light brown on both sides, with traces of secondary burning. BD: 10 cm (?), WT: 0.8 cm. Pl. 3/9.
13. Fragment from the bottom of a slow-turning wheel modelled recipient, small pebbles (under 1 mm) mixed sand tempered, brown-greyish on both sides, with traces of secondary burning. BD: 10 cm, WT: 0.8 cm. Pl. 3/10.

²⁴ The abbreviations used in the description are the following: RD = rim diameter; BD = bottom diameter; WT = wall thickness.

C3/2007

1. Fragment from the rim, the neck and the shoulder of a slow-turning wheel modelled vessel, pebbles (1–3 mm large) mixed sand tempered, dark brown on both surfaces and having traces of secondary burning on both sides as well, with black core. At the shoulder level, we distinguish one row of finger made impressions. The rim is everted and obliquely cut. RD: 18cm, WT: 0.9 cm. Pl. 3/1.

2. Fragment from the rim of a slow-turning wheel modelled cauldron, small pebbles (under 1 mm) mixed sand tempered, light brown on both sides, with greyish core. The rim is cut straight and everted. RD: 28 cm (?), WT: 0.7 cm. Pl. 3/2.

3. Fragment from the rim and the body of a slow-turning wheel modelled cauldron, pebbles (1–3 mm large) mixed sand tempered, light brick-red on both surfaces with greyish spots resulted because of a secondary burning and greyish core. There are 2 straight lines on the fragment (a horizontal one, of 3 cm and an oblique one of 1,5 cm), very improbable made as a decorative motive. WT: 0.8 cm. Pl. 3/4.

4. Fragment from the body of a slow-turning wheel thrown pot, pebbles (1–3 mm large) mixed sand tempered, brick-red – greyish on the outer surface and dark greyish on the inner one, with marks of secondary burning. 2 simple wavy lines were used as ornamentation. WT: 0.6 cm. Pl. 3/5.

S1+/2007

1. Fragment from the wall of a slow-turning wheel modelled recipient, small pebbles (under 1 mm) mixed sand tempered, brick-red coloured on both sides, with secondary burning traces. It was decorated with a 3 teeth comb made small impressions, in a row. WT: 0.6 cm. Pl. 3/6.

2/2007

1. Fragment from the rim of a slow-turning wheel modelled cauldron, pebbles (1–3 mm large) mixed sand tempered, light brick-red on both surfaces, with greyish central part. The rim is largely everted and slightly arched. RD: 20 cm, WT: 0.7 cm. Pl. 3/3.

The 2009 material

1. Fragment from the rim, the neck and the shoulder of a wheel made pot, small pebbles mixed sand tempered, brown-greyish on the outside, due to the secondary burning and light brown on the inside, with greyish central part. The rim is everted and rounded and it has oblique impressions on the shoulder. RD: 17 cm, WT: 0.8 cm. Pl. 4/1.

2. Fragment from the body of a slow-turning wheel thrown vessel, small pebbles mixed sand tempered, light brown on the outer surface, with a greyish spot and black on the inner surface. The body of the recipient was provided with a button. WT: 0.7 cm. Pl. 4/2.

3. Fragment from the rim and the body of a wheel made vessel, small pebbles mixed sand tempered, light brown on the outer surface and black on the inside. The rim is upward shifted and cut straight (horizontally). WT: 0.7 cm. Pl. 4/3.²⁵

²⁵ Translated by Coralia Crișan.

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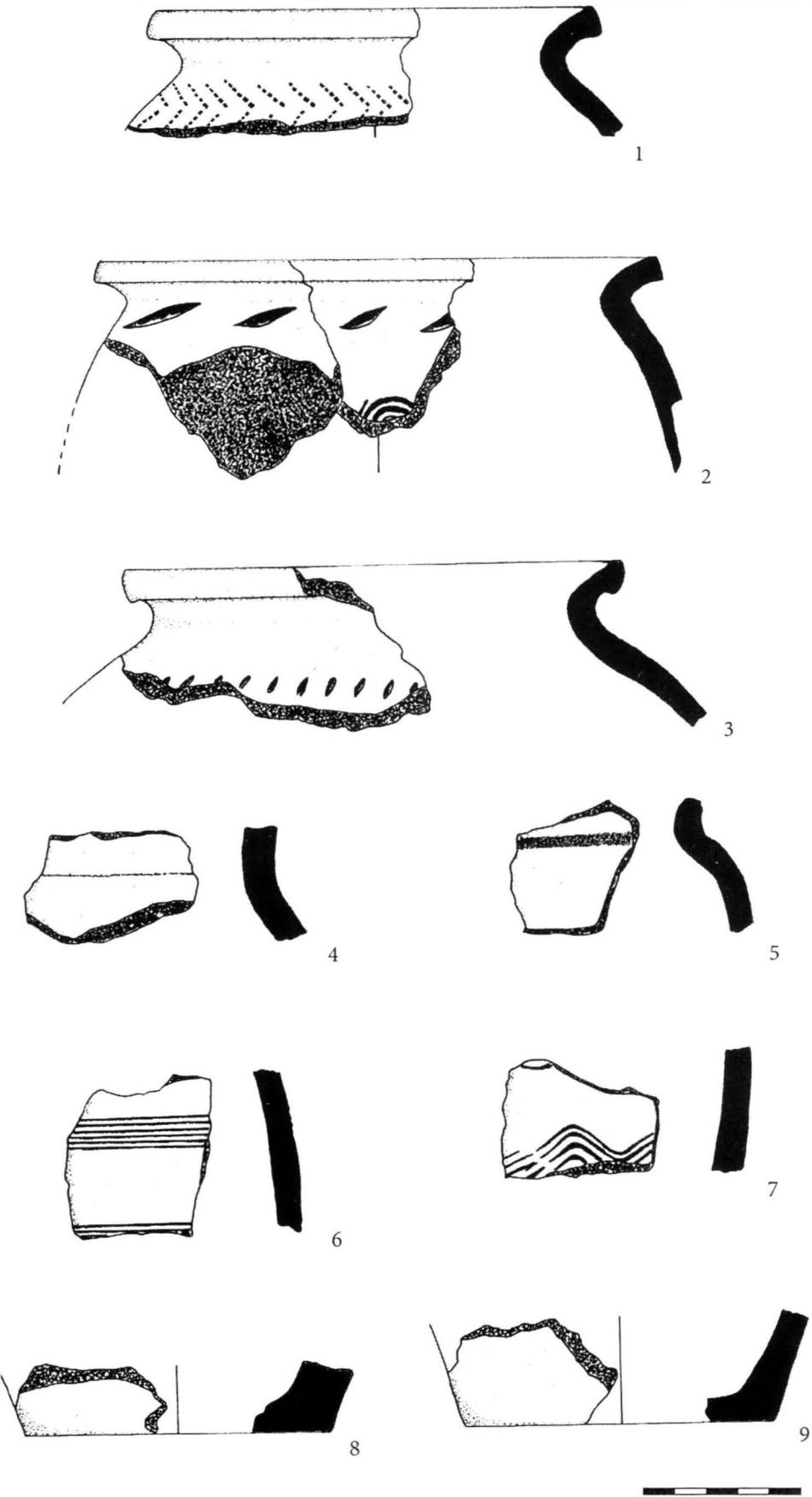


Plate 2. Sângeorgiu de Mureş–Roman Catholic Cemetery. Early medieval pottery.

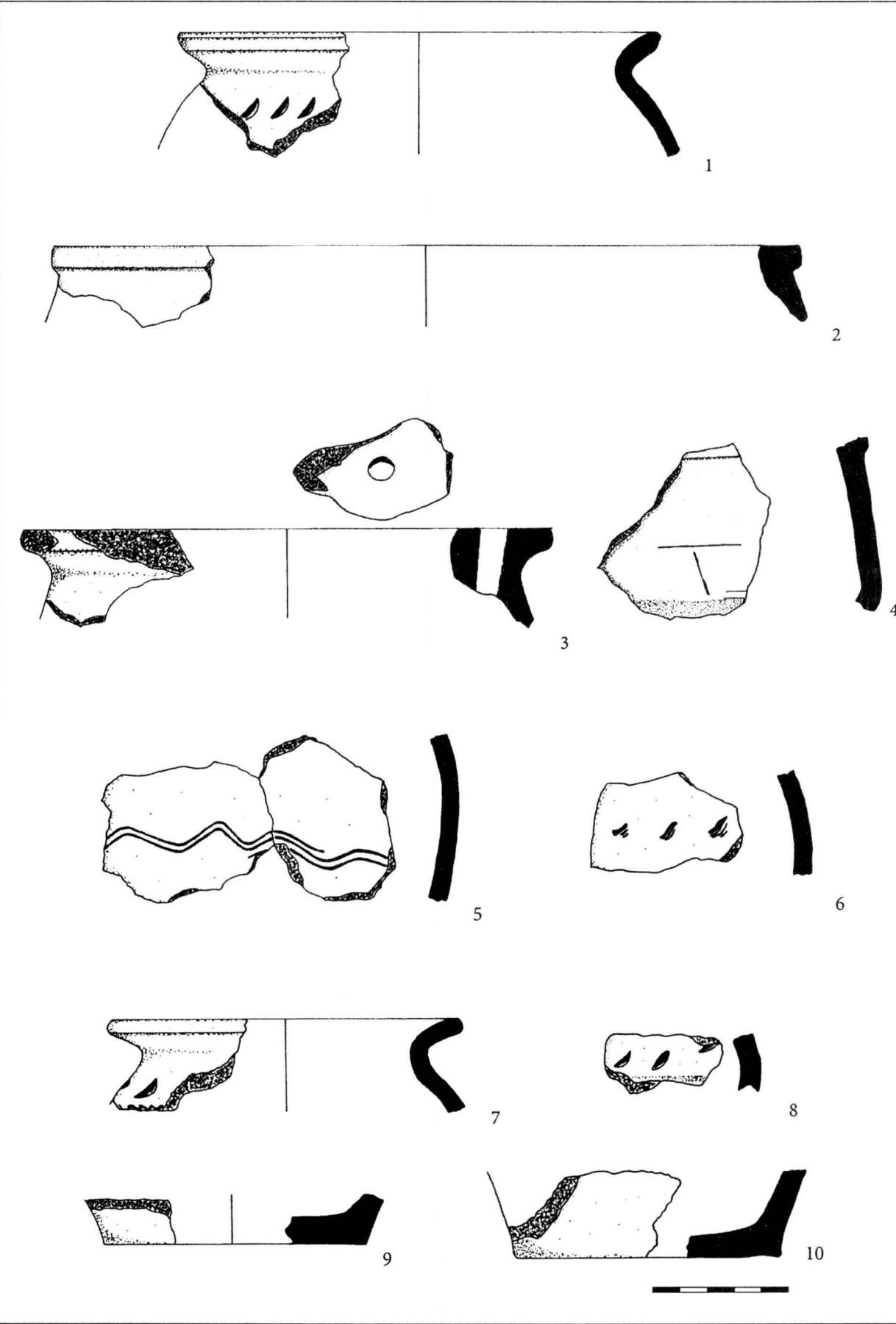
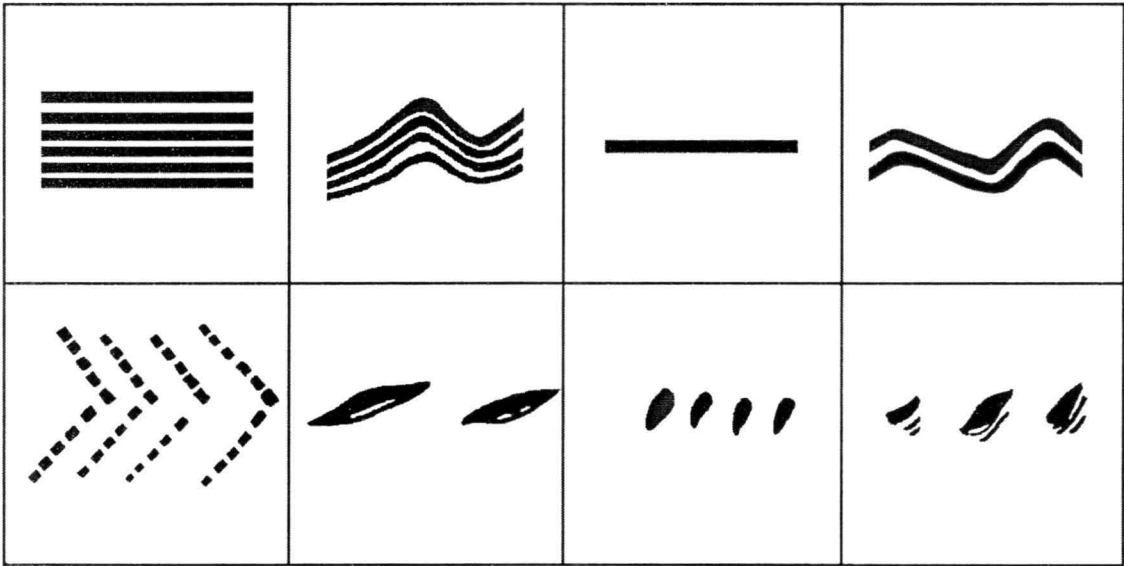
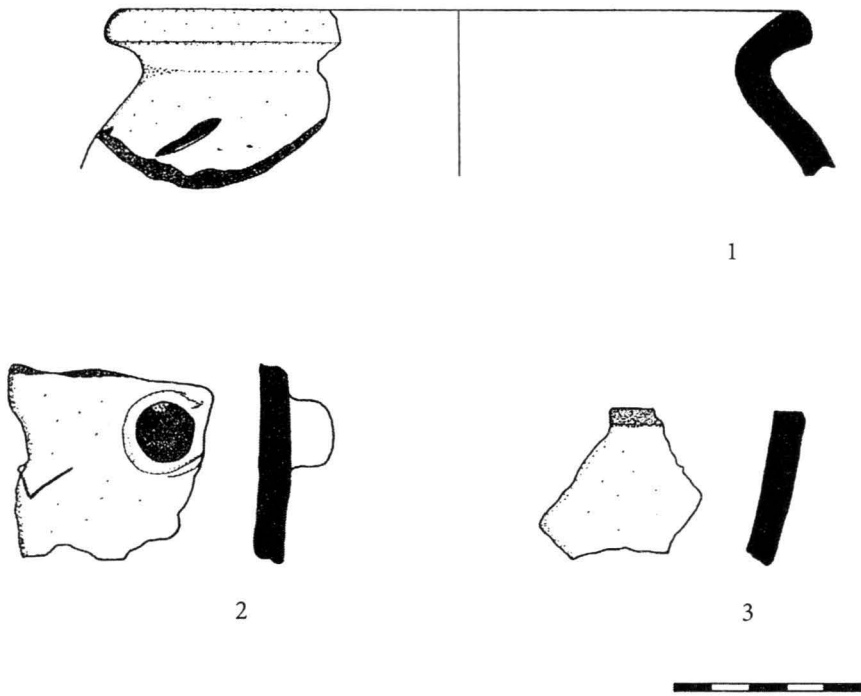


Plate 3. Sângeorgiu de Mureș–Roman Catholic Cemetery. Early medieval pottery.



4

Plate 4. Sângeorgiu de Mureş–Roman Catholic Cemetery. 1–3. Early medieval pottery; 4. Types of decoration.

ARCHAEOLOGICAL DATA REGARDING THE MEDIEVAL HISTORY OF THE UNITARIAN CHURCH IN ADĂMUȘ (MUREȘ COUNTY)

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Keywords: architecture, construction phases, graves, anthropology, Middle Ages

The monument church in Adămuș (Hungarian: Ádámos) has been the target of cultural and art history research since the beginning of the last century. Its significance is due to its dated painted ceiling, unique in Transylvania and presently on display at the Hungarian National Gallery.¹

The church was first mentioned in Lénárd Barlabási's will dating from the late Middle Ages.² The document shows that Transylvania's vice-voivod left 20 forints to the Adămuș parish. Since no earlier document offers any information on the church, its medieval history can only be reconstructed by history of art and archaeological research.

Historical sources regarding the settlement are also scarce, documentary references become more frequent only at the end of the 15th century and the beginning of the 16th century. Written documents mentioned Adămuș in 1405 for the first time, stating that it was transferred into the Bogáti family's ownership.³ The settlement's previous history can be indirectly traced from this same document that mentions the land as a former royal tenure. Several families acquired property in Adămuș during the 15th century, among them the Vizaknais,⁴ Baládfis of Kiskend (Chendu),⁵ Porkolábs.⁶ Imre Porkoláb also owned a manor here in the second half of the century.⁷ Albert Patócsi who came into possession of land through the Baládfi branch, also built a manor in the second half of the 15th century, the document indicates its location, as well.⁸ At the beginning of the 16th century several documents mentioned the name of Gáspár Horváth of *Adamus* who was – among others – captain of Fogaras castle.⁹ Adămuș became the estate of the Transylvanian Principality and was later donated to Farkas Kovacsóczi by Zsigmond Báthori.

¹ Kelemen 1977; 1982; Mikó–Szentkirályi 1987; Kovács 2003.

² DL 74407; TelekiOkl II, 453. – “*ecclesie parochiali de Adamos*”.

³ 1405: Zsigmond Okl. II/1, 528 (4276), DL28770 – “*possessio Adamus*”; 1450: Jakó 1990, 419 (892–893).

⁴ 1457: DL 74138; 1507: Jakó 1990, 266 (3417).

⁵ 1435: DL 38652; Jakó 1990, 419 (893); 1540: SzOkl. II. 64–65.

⁶ 1494: DL 29881 – “*Johannis Porkolab de Adamos*”; 1500: DL 30335 – “*Emericus Porkolab de Adamos*”; 1507: Jakó 1990, 266 (3417), 295 (3517) – “*Emericus Porkolab de Adamos*”.

⁷ 1503: Jakó 1990, 227–228 (3280) – “*domum et curiam suam nobilitarium*”.

⁸ 1494: DL 29881 – “*sessionum iobagonalium eiusdem Keozepwczá appellate, in fine a parte fluvii Kykwllew vocati... domum et curiam edificari*”.

⁹ 1498: DL 27090 – “*provisor curiae...Ladislai Gereb episcopi*”; 1501: DL 21049 – “*castellano dicti castry fogaras*”; 1502: DL 21118; 1504: Dl 32558 – “*castellanus castri fogaras*”; 1524: Jakó 1990, 337, 439 (4024, 4025).

The medieval church lies on the first terrace rising from the Târnava Mică valley, in the southwest part of Adămuș, on the right side of the road coming from Târnăveni. The eastward oriented hall-church has a polygonal choir. Its western facade tower has four levels and is covered by a shingled steeple. Diagonal buttresses can be seen on the corners of the church's western wall. Besides the buttresses sustaining the triumphal arch, the church's northern facade is also dissected by a perpendicular and a diagonal support. The latter one's pair might have disappeared from the southern wall at the beginning of the 20th century during the construction works of the porch. The closing corners of the sanctuary, as well as the lengthwise walls were strengthened with buttresses. The nave's and the sanctuary's southern facade are both structured by 3, respectively 2 similar arched windows. One can enter the church either through the segmental western door located under the tower or through the southern lanced doorway. The nave's southern entrances as well as the windows were created during the 20th century's reconstruction works.¹⁰

Above the triumphal arch's key stone a gothic capitalized inscription reads ANO\$DOI (ANNO DOMINI) and the year 1518. Besides this inscription recent art history research¹¹ has discovered two more medieval details. In the sanctuary, underneath the thick plaster and brick layer a late Gothic sacristy door with shouldered arch was discovered, while on the western wall, under the canopy a red decorative frieze came to light.¹² Two more details need to be attentively analyzed. One is the unconventional position of the diagonal buttress supporting the northern nave wall which presumably indicates an earlier construction phase. The other one is the buttress propped against the sanctuary's northern wall, shifted eastwards which indicates the demolished sacristy's location.

Description of the excavations

Drainage and isolation works carried out around the church made it possible for a minor archaeological rescue excavation to take place.¹³ Due to lack of communication and other objective circumstances only the northern side of the church could be included in the project. In determining the trenches we tried to choose those points that could answer questions raised during previous research projects. In accordance with these requirements we opened 3 trenches.

Trench 1 (Pl. 2; 4)

The first trench was marked at the meeting point between the sanctuary and the nave, on the northern side of the church, partly in order to identify the demolished walls of the sacristy, and partly to clear up the circumstances of the foundation done in the sanctuary and the nave. The 4 × 3.50 m trench was deepened to an average of 1–1.20 m from the current surface (▼1.60–1.80 m).

¹⁰ Kovács 2003, 8, 16.

¹¹ We would like to thank to art historian Zsolt Kovács and to restaurator Lóránd Kiss for the useful indications and meaningful discussions.

¹² Kiss-Pál 2003, 3.

¹³ We would like to express our gratitude to Keve László, Zoltán Soós, Róbert Szálteleki and Emese Sántha for helping us in our research.

In the northern part of the trench, 0.50–0.70 m deep we found a foundation in west–east orientation. It was made of sandstone seasoned with some clayey-sandy poor quality material. The same foundation could be found under the buttress lying in the triumphal arch's axis and was partly present in the eastern wall found in our trench. We identified this as the foundations of a sacristy joining a previous church's sanctuary. We found the base of the foundation in a depth of 1.70 m. It was 0.80 m wide, 0.90–1.00 m thick and was lying on the yellow subsoil. The current sanctuary's foundation was clearly built later and joined to the previously built sacristy's foundation. The fact that the sanctuary's northern wall was built on a completely new foundation, separate from that of the old sanctuary, leads us to believe that the latent foundations of the previous sanctuary may have been preserved and could be uncovered in the church's interior.

The polygonal sanctuary's foundation base was found 1.65–1.70 m deep. It consists of dark grey sandstone slabs mixed with bricks; the mortar contains gravel and sand. No foundation brim was visible; however there is an obvious difference between the foundation and the brick elevation carried out in a more regular way.

Parallel with the earlier sacristy's northern wall, about 0.70 m far from it, we found a wall consistent with the above mentioned sanctuary's foundation. This must have been built at the same time, the fact being proved by the wall portion kept in a half square meter surface on the western side which was built with the same bricks as that of the sanctuary. We presume to have discovered the western and northern walls of a sacristy, contemporary with the sanctuary and bigger than the previous one.

We were not able to identify a trodden surface that could be stratigraphically justified, however we can indirectly mark its more or less definite place. The demolished older sacristy, as well as the later sanctuary and its belonging sacristy are mostly on the same level, 0.55–0.65 m deep. The bottom of the destruction level lies in the same depth and underneath it we found a 1–2 cm thick greenish-greyish clay layer. This was followed by the yellowish-brownish filling of the grave pits. The flooring of the earlier church's sacristy must have been therefore roughly on the same level with the later sanctuary and its sacristy. This is well below the current surface, 0.50–0.60 m deep. The 0.50 m thick filling can be broken up into two parts; however this is not always obvious. We also ascertained unsettling caused by construction works carried out in the early 20th century. In the trench's northern and south-eastern parts in the 0.20–0.25 m thick layer underneath the humus, several waste materials from the beginning of the 20th century turned up, pieces of Kikinda (Serbia) tile among others.

In this surface twelve graves were excavated¹⁴ (Plate 2/a; 5/4):

M1. 25–30 years old Adult. The skeleton was preserved fragmentary. *Skull. Thorax:* 15 fragments from the diaphysis of ribs and 1 fragment from the stern (corpus sterni). *Sex determination:* it is not possible with classical methods. *Age determination:* the dimension and the surface of the ribs show adult characters.

M2. 14–16 years old Juvenis Female. A detailed analysis was possible. The skeleton was preserved relatively good. *Skull. Cranium:* parietal, occipital, temporal and frontal bone, the degree of the galbella is 3, the protuberantia externa is 4. *Bones of the face:* fragments from the maxilla and mandible. *Situation of teeth:* teeth in the alveola: I2 (2), C (2), PM1 (2), PM2 (2), M1,

¹⁴ Gál 2009.

M2 (2), I2 (1), C (1), PM1, PM2 (1), M1, M2 (1), C (3), M1, M2 (3), C (4), PM2 (4), M1, M2 (4); fallen teeth post mortem: I1 from all quadrants, 1 PM (probably PM1 from the 4th quadrant). *Thorax*: 5 cervical vertebrae, 6 thoracic vertebrae and 5 lumbar vertebrae, 9 fragments from ribs. *Bones of pelvis girdle*: iliac bones, pubian bone and small fragments from sacrum. *Upper limbs (arms)*: distal epiphysis of right humerus, fragments of the humerus' had and proximal epiphysis of the right radius. *Lower limbs*: right and left femur (l. of bone 320 mm), the distal epiphysis of the right femur is not preserved. *Skeleton of the feet*: left talus and calcaneus and phalanges. *Sex determination*: bones of the pelvis and bones of the skull show female characters. *Age determination*: ecto- and endocranial sutures, the situation of teeth, the synostosis of the epiphysis show a young female.

M3. 8–10 years old Juvenis. In this case only the lower limbs preserved, left (l. of bone 228 mm) and right femur (l. of bone 228 mm). *Sex determination* was not possible. *Age determination*: the synostosis of epiphysis ends and dimension of long bones show characters of a young child.

M4. 9–10 years old. Infans II. The skeleton was preserved fragmentary. *Skull. Thorax*: 5 thoracic vertebrae. *Upper limbs (arms)*: fragments from the diaphysis of ulna and radius. *Skeleton of the hand*: phalanges. *Bones of pelvis girdle*: iliac bones, proximal part of the sacrum. *Lower limbs*: left (l. of bone 240 mm) and right femur (l. of bone 240 mm), left (l. of bone 200 mm) and right tibia (l. of bone 200 mm). *Skeleton of the feet*: left talus and calcaneus, right talus and phalanges. *Sex determination* was not possible. *Age determination*: the synostosis of the epiphysis and dimensions of long bones indicate a young child.

M5. Adult (Pl. 5/5). The skeleton was preserved fragmentary. *Skull. Thorax*: 4 thoracic vertebrae. *Upper limbs (arms)*: left and right radius, distal epiphysis of the right ulna. *Skeleton of the hands*: scaphoideus bone, 1 metacarpus and 3 phalanges. *Bones of pelvis girdle*: iliac bones, small fragments from the pubian bone. *Lower limbs*: left patella. *Sex determination* was not possible. *Age determination*: the dimensions of long bones indicate an Adult person.

M6. 6–7 years old Infans I child. A detailed analysis was possible. The skeleton was preserved relatively good. *Skull. Cranium*: parietal bone, occipital bone, temporal bone, frontal bone, the degree of the galbella is 2, could be observed sutura metopica on the frontal bone. *Bones of the face*: zygomatic bones, zygomatic arch, ethmoid bone, fragments from the maxilla, mandible. *Situation of teeth*: teeth from the alveola of maxila: M1 (1), M2 (1), PM1, PM2 (2), M1 (2); I2 (3), C (3), PM1, PM2 (3), I1 (4), PM1, PM2 (4), M1 (4). *Dental formula*: 2102. *Thorax*: 18 small fragments from vertebrae (only the body), distalis part of the sacrum, 54 small fragments from the ribs. *Upper limbs (arms)*: proximal part of the left and right shoulder-blade, distal epiphysis of the left and right humerus (cortical layer 2 mm), small fragments from the diaphysis part of ulna and radius. *Bones of pelvis girdle*: iliac bones, pubian bone and distal part of the sacrum. *Lower limbs*: right and left femur in 2–2 pieces (l. of the bone 205 mm). *Sex determination* was not possible. *Age determination*: cortical layer (2–3 mm), the dimensions of long bones and the situation of teeth (eruption phase of the M1) show a young child.

M7. 2–4 years old Infans I. Child. The skeleton was preserved fragmentary. *Skull. Cranium*: parietal bones, temporal bone (processus mastoideus, porus acusticus externus), the ecto- and endocranial sutures are open. *Bones of the face*: fragments from the mandible. *Situation of teeth*: DC, DM1, DM2 (3/4). *Dental formula*: 2102. *Thorax*: small fragments form

cervical (2) and toracical (3) vertebrae, small fragments from the diaphysis of ribs. *Upper limbs (arms)*: left clavicula (sternal part of bone), left shoulder-blade (proximal part of the bone), right radius (l. of bone 118mm), fragments from the diaphysis part of the left radius and ulna. *Lower limbs*: had of the right femur (diam. 31 mm). *Sex determination* was not possible. *Age determination*: cortical layer (1–2 mm), the dimensions of long bones and the eruption phase of teeth show a young child.

M8. 10–12 years old Infans II child. The skeleton was preserved fragmentary. *Skull. Cranium*: parietal bones, occipital bone, temporal bone, frontal bone, foramen acusticus externus. *Bones of the face*: fragments from the maxilla and mandible. *Situation of teeth*: PM1 (1), M1 (1), I2 (2), C (2), PM1 (2), M1 (2), PM1 (3), M1 (3), I2 (4), C (4), PM1 (4); identified in the alveolar M2, M3 from the maxilla and mandible. We found eruption error in the maxilla: I1 and C from the maxilla were still in the alveolar, the surface of the alveolar was in advanced phase and the tooth couldn't knock out from the alveolar. *Sex determination* was not possible. *Age determination*: ecto- and endocranial sutures, the situation of the teeth show a child.

M9. 2–4 years old Infans I child. The skeleton was preserved fragmentary. The most part of the skeleton is missing. We had recovered fragments from the skull: parietal bones, frontal bone. *Sex determination* was not possible. *Age determination*: the dimensions of the skull show a young child.

M10. 11–15 years old Infans II child. We could make a detailed analysis. The skeleton was preserved relatively good. *Skull. Cranium*: parietal bones, occipital bone, temporal bone, frontal bone, foramen acusticus externus. *Bones of the face*: right zygomatic bone, fragments from orbita, the maxilla in 2 pieces, right half of the mandible. *Situation of teeth*: I2 (1), C (1), PM1, PM2 (1), M1, M2 (1), I1, I2 (2), C (2), PM1, PM2 (2), M1, M2 (2), I1 (3), C (3), PM1, PM2 (3), M1 (3), I1, I2 (4), PM1, PM2 (4), M1, M2 (4). *Dental formula*: 2123. *Thorax*: 1 thoracic vertebra and 2 lumbar vertebrae, 5 fragments from ribs. *Upper limbs (arms)*: diaphysis part of the left humerus, left and right radius and ulna without distal epiphysis. *Bones of pelvis girdle*: iliac bones, fragments from ischion bones, fragments from pubian bones and sacrum. *Lower limbs*: left (l. of bone 330 mm) and right femur (l. of bone 330 mm). *Sex determination* was not possible. *Age determination*: eruption phases of the teeth and the ossification phase of the humerus and femur show characters of a child.

M11. 2–5 years old Infans I child. The skeleton was preserved fragmentary. The most part of the skeleton is missing. *Skull. Cranium*: small fragments from parietal bones. *Thorax*: 5 fragments from ribs. *Upper limbs (arms)*: proximal epiphysis of the right radius. *Sex determination* was not possible. *Age determination*: cortical layer of the radius (1 mm) and dimensions of the bones show a young child.

M12. The osteological material was destroyed because of the soil characteristics.

Trench 2 (Pl. 3/d–f; Fig. 1)

By opening this trench (2.50 × 2.00 m) we tried to find an explanation to the unusual location of the buttress on the nave's northern side. In the small area closed in by the buttress and the nave an earlier buttress's foundation was visible 1 m deep. This showed similar traits to the early sacristy wall found in C1 and the nave wall documented in S1. The early buttress' groundwork was based 2 m deep and the later buttress' groundwork lay approximately in the same depth using the previous foundation.

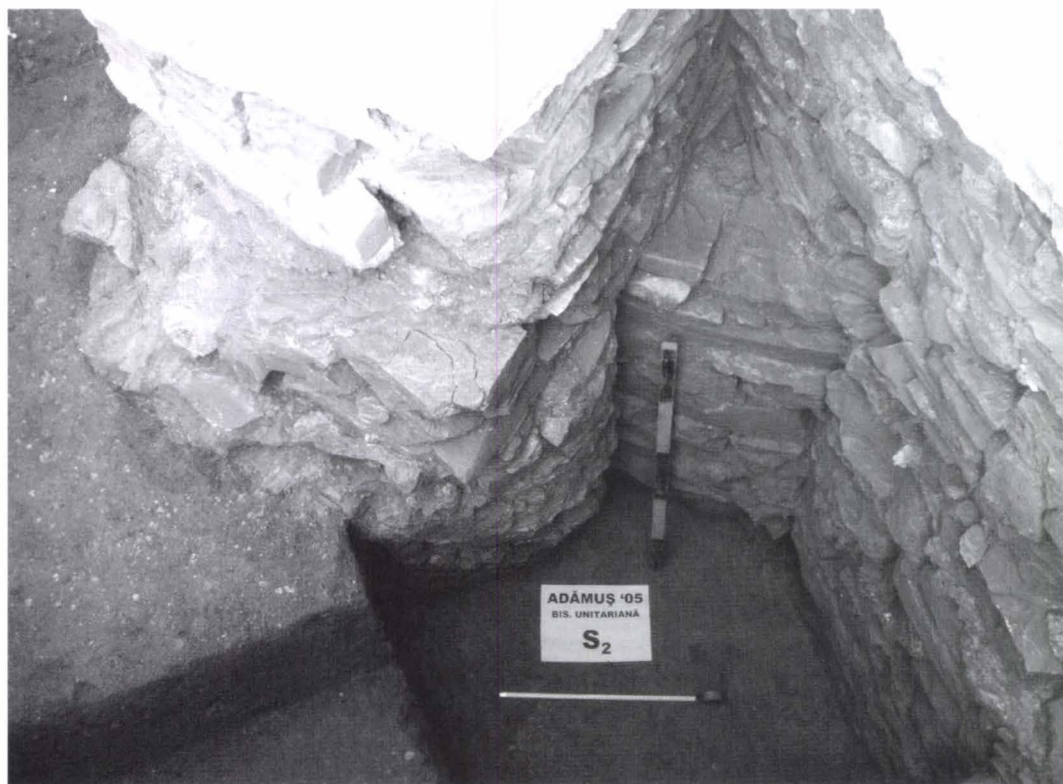


Fig. 1. Trench 2 from the north-west.

Trench 3 (Pl. 3/a–c; 5/1–3)

We marked the test trench (5.50×2.00 m) half a meter west from the first trench, perpendicularly on the nave's wall. Its initial size was 4×2 m. It was meant to document mainly the foundation of the nave and to verify the relationship between that wall and the buttress located in the triumphal arch's axis. We established that its structure, material and mortar matched that of the buttress'. The wall's base was found 2.10 m deep, dug 0.15–0.20 m deep in the yellow clayey subsoil. After documenting the trench and before leaving the site we also noticed on a small surface that the nave's foundation and that of the buttress are linked. We lengthened the trench by 1.5 m in order to better research the wall portion seen in northern profile. The 0.60–0.65 m wide groundwork visible all the width of the trench shows identical signs with those of the later sacristy and probably comes from the same building phase. In the middle of the trench a 0.50–0.55 m wide groundwork turned up, made of sandstone slabs, river stones, brick pieces and a poor quality mortar. This was laid on brownish-yellowish clay filling. Its role hasn't been determined yet.

The researched surface's stratigraphy was fairly simple. The upper 0.20–0.25 m deep 20th century filling was followed by a 0.80–0.90 m thick layer from the modern era, full of brick pieces and mortar clods. There was yellowish-brownish clay filling in the graves 0.90–0.95 m deep on the same layer with the northern wall's foundation brim, while the brown medieval layer was 1.70–1.80 m deep. We dug the trench 2 m deep on the southern side down to the yellow clayey subsoil. We separated 3 graves in the trench's northern part, but their exploration didn't take place.

Interpretation of the excavation

The church (Fig. 2)

Our research proved the existence of at least two separate medieval building periods.

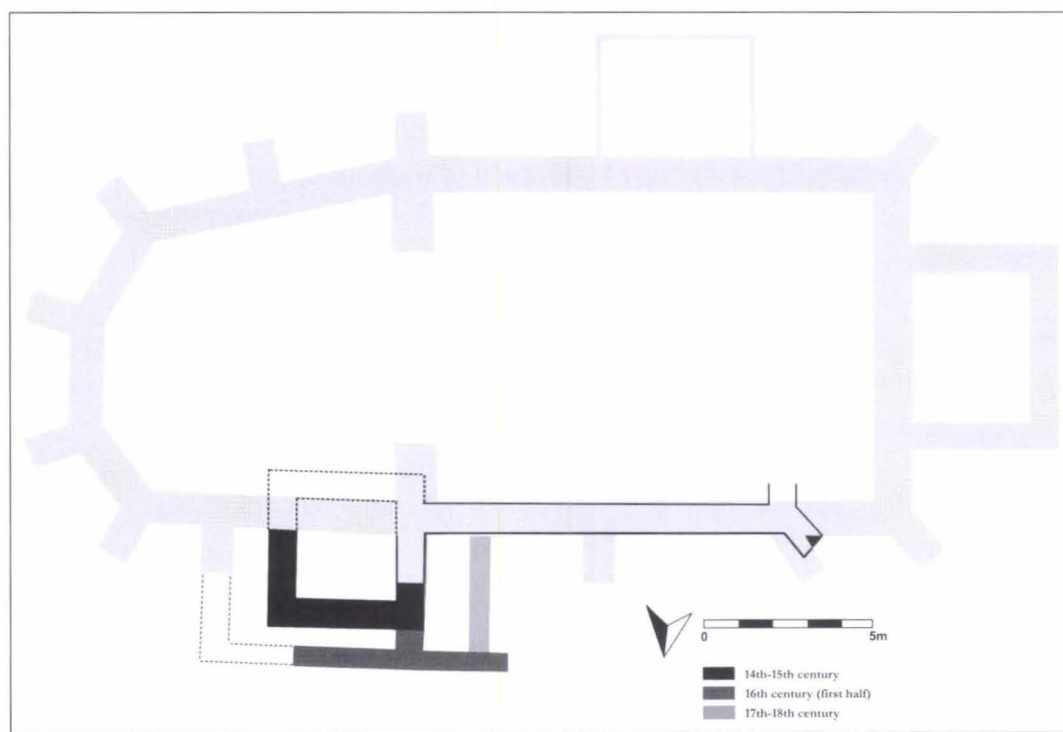


Fig. 2. The plan and phases of the church.

1st period (14th century). The church's oldest existing part is the northern wall section between the sanctuary and the diagonal buttress. This early church had a 3 m long and 2–3 m (?) wide sacristy that we also managed to document. We couldn't identify the early church's sanctuary wall; we can only presume that it could not have been far away from the current one. The nave's length was approximately 8.5 m. We unfortunately cannot define the time the first church was built for lack of essential proof. The graves dating from before the building have no grave-goods and no other material linked to this earlier phase has been found. No carvings, not even in secondary position have turned up. It is certain that by the time of the settlement's first mentioning in the 15th century, the early church must have been standing. In accordance with this fact, we date the earlier church to the 14th century.

2nd, late Gothic period (16th century). After the early sanctuary was demolished, a bigger, polygonal sanctuary was built; its groined vault was taken down at the end of the 19th century.¹⁵ Simultaneously, the earlier sacristy was enlarged; however we do not know its exact size as we have not been able to explore its eastern wall. It may have ended at the first buttress of the northern sanctuary wall, this fact being suggested by the buttress's unusual position compared to its southern pair. If our presumption is correct, its size would have been 4.50 × 3.50 m. We have not been able to establish where the groundwork continuing westward above the sacristy's northern wall ends, therefore we don't know the size and function of the inner space that it delimited. We cannot prove, but we also cannot exclude the possibility that it was used as an

¹⁵ Kelemen 1977, 233.

ossuary. The enlargement of the nave and the lengthening of the northern facade by 2.60 m may have taken place at that time.

We also don't know the purpose of the wall foundation perpendicular on the nave's wall and based on the graves' filling. Its age is also hard to define, it is however certain that its construction is dated later than the before mentioned building. The question whether the nave's southern facade has the same age and structure as the northern one, remains unanswered. According to historical sources, extensive reconstruction and building took place in the first decades of the 16th century. It is impossible to identify any of the mentioned families' members as the initiator of these works. It can only be assumed that one of the mentioned owners ordered and supported the construction. The finding consisted of some modern pottery fragments and wrought iron nails.

The cemetery

Two of the graves had adjacent goods: in the grave M6 probably a bad preserved headdress ornament (Fig. 3), and in the grave M1 a common bronze ring was uncovered.

The unearthed graves had an east-western orientation, with slight difference being showed only by the graves M8, M9. The position of the hand was documented in four of the graves. In three graves the upper arm was beside the body, and the lower arm slightly bent, with the metacarpus reaching the lower side of the pelvic bone. In one of the graves the right lower arm is slightly bent, while the left one is bent at the elbow, with the metacarpal resting on the pelvis. Three uncovered graves (M2, M4 and M5) can be dated, without hesitation, previous to the first identifiable construction phase, because they were disturbed by the foundation. The disturbed M1 grave can be assigned also to this first period. We have less information regarding grave M6, which orientation corresponds with the graves mentioned earlier, but on the upper parts of the filling we have found small mortar flecks, which may prove an earlier construction phase, but regarding their position they can belong also to a later demolition layer. The graves M7, M8 and M9 can be synchronized with a later period, each of them reviling small mortar and brick fragments. The most recent grave is M10.

During the morfo-taxonomical analysis could be followed different methods for Infans skeletons, Juvenis and Adultus-Senilis skeletons, too. For children could be applied dental analysis (eruption phases of teeth),¹⁶ the dimensions of long bones, etc.¹⁷ In Juvenis cases could be applied dental analysis, the ossification phase (synostosis) of the epiphysis ends and the dimensions of long bones.¹⁸ For Adult skeleton the analyses of ecto- and endocranial suture



Fig. 3. Headdress ornament from Grave M6.

¹⁶ Miles 1963, 191–209.

¹⁷ Stloukál–Hanáková 1978, 53–69; Ubelaker 1989, 37.

¹⁸ Nemeskéri *et al.* 1960, 105–115.

closure were applied,¹⁹ the degradation processes of teeth, the proximal and distal epiphysis of long bones and analysis of ribs.²⁰ The morphological and metric data were collected after Martin's classification. For estimation of stature (Fig. 4) the method of Sjøvold and Rösing in Martin's classification could be followed.²¹

Females and Children			Males		
femur	Stature	Martin's	femur	Stature	Martin's
average	by Sjøvold	classification	average	by Sjøvold	classification
320,00	132,58	vs	445,00	166,46	m
205,00	101,42	–			
330,00	135,29	vs			

Females and Children			Males		
femur	Stature	Martin's	Femur	Stature	Martin's
average	by Pea-Rös	classification	Average	by Pea-Rös	classification
320,00	134,00	vs	445,00	163,66	sm
205,00	111,58	–			
330,00	135,95	vs			

Fig. 4. Estimation of stature.

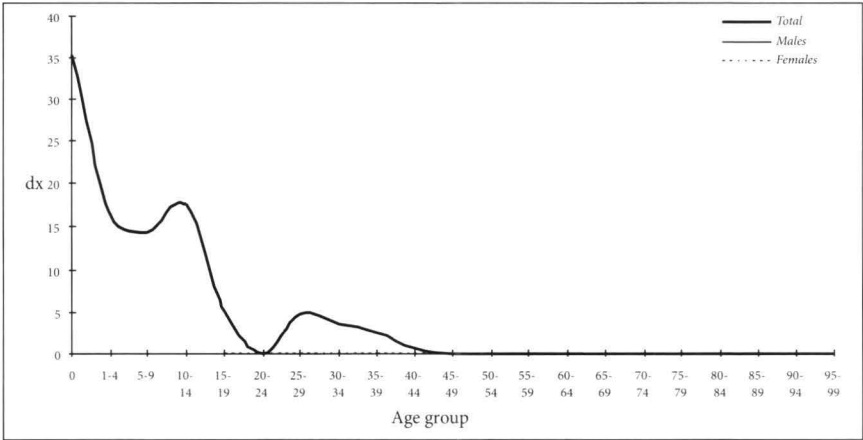


Fig. 5. Mortality curves.²²

Because of the soil characteristics a comprehensive measurements on the skulls couldn't be realised. During the analysis 2 Adultus, 2 Iuvenis, 4 Infans I, 3 Infans II and 1 undetermined skeleton (total 12 human skeletons) were identified. The anthropological representation of the population is relatively good. On postcranial bones morfo-taxonomical measurements could be realised. Teeth are in good condition. No marks for paradonthosis or prognathia alveolaris could be observed. The answer for this situation is the age, dental decease appear at Iuvenis and Adult ages. Children mortality is high, most of them had died at 2–5 and 10–15 years old (epidemics), in Medieval Age the high children mortality is typical (Fig. 5).²³ In one case could be observed

¹⁹ Meindl–Lovejoy 1985, 57–66.

²⁰ Martin–Saller 1957; İşcan *et al.* 1984, 1094–1104.

²¹ Sjøvold 1990, 431–447.

²² Bernert 2005, 71–75.

²³ Éry *et al.* 1963, 85–90.

epigenetical mark, metopic suture (grave no. 6). On one skeleton a pathological case was discovered (epigenetic irregularity or metabolic disease):²⁴ irregular eruption of teeth (I1 and C). The stature of children is in correlation with the age.²⁵ In eight cases could be measured the stature, the highest person was an adult male: 166.46 m.²⁶ The robust character of bones and relatively small stature is typical for Central-East Transylvania in Medieval and Modern Ages (for ex. the Modern Age cemetery from Avrămești, Harghita county, in processing).

During the excavation the archaeological team had discovered the cemetery of children (9 children and 2 adult) and most part of the human remains was buried after an epidemics.

Our rescue excavation answered some of the questions related to the construction history of the church and also raised new ones. Further archaeological exploration and research in art history could reveal the answers to those.

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²⁴ Ortner–Puthar 1981.

²⁵ Stloukal–Hanáková 1978, 53–79.

²⁶ Sjøvold 1990, 431–447.

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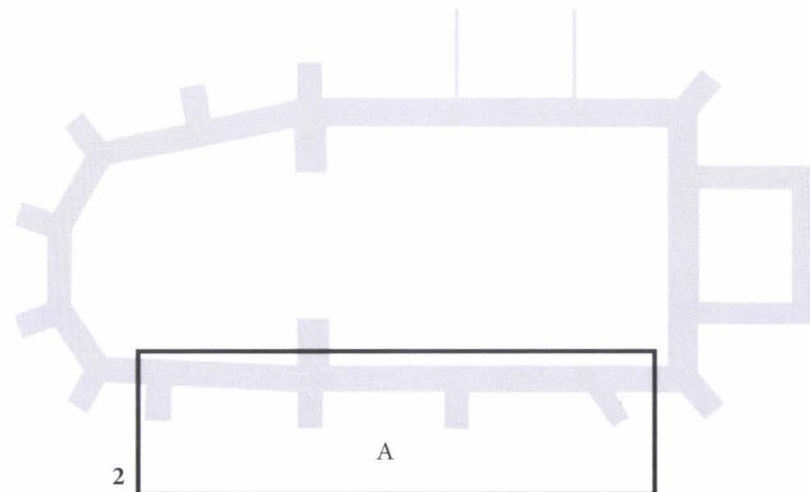
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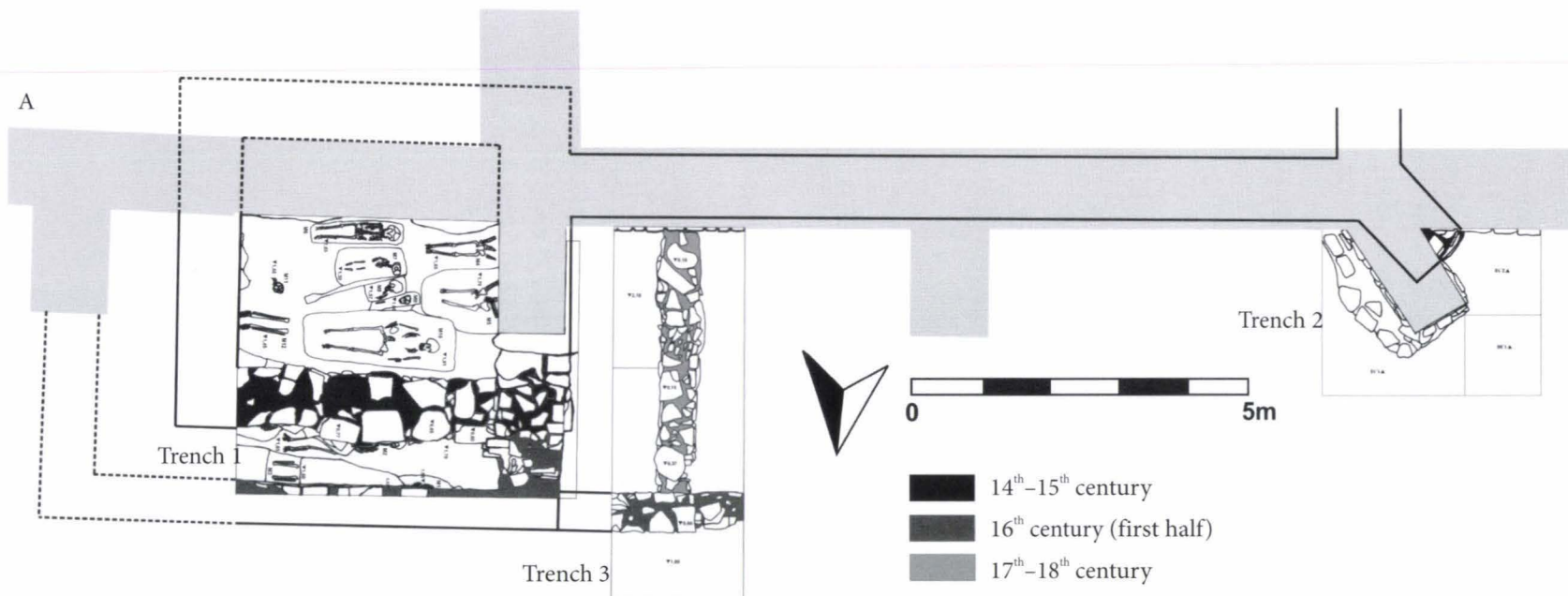


Plate 1. 1. Site location (Ortophoto, © Mureş County Council); 2. Plan of 2005 trenches.
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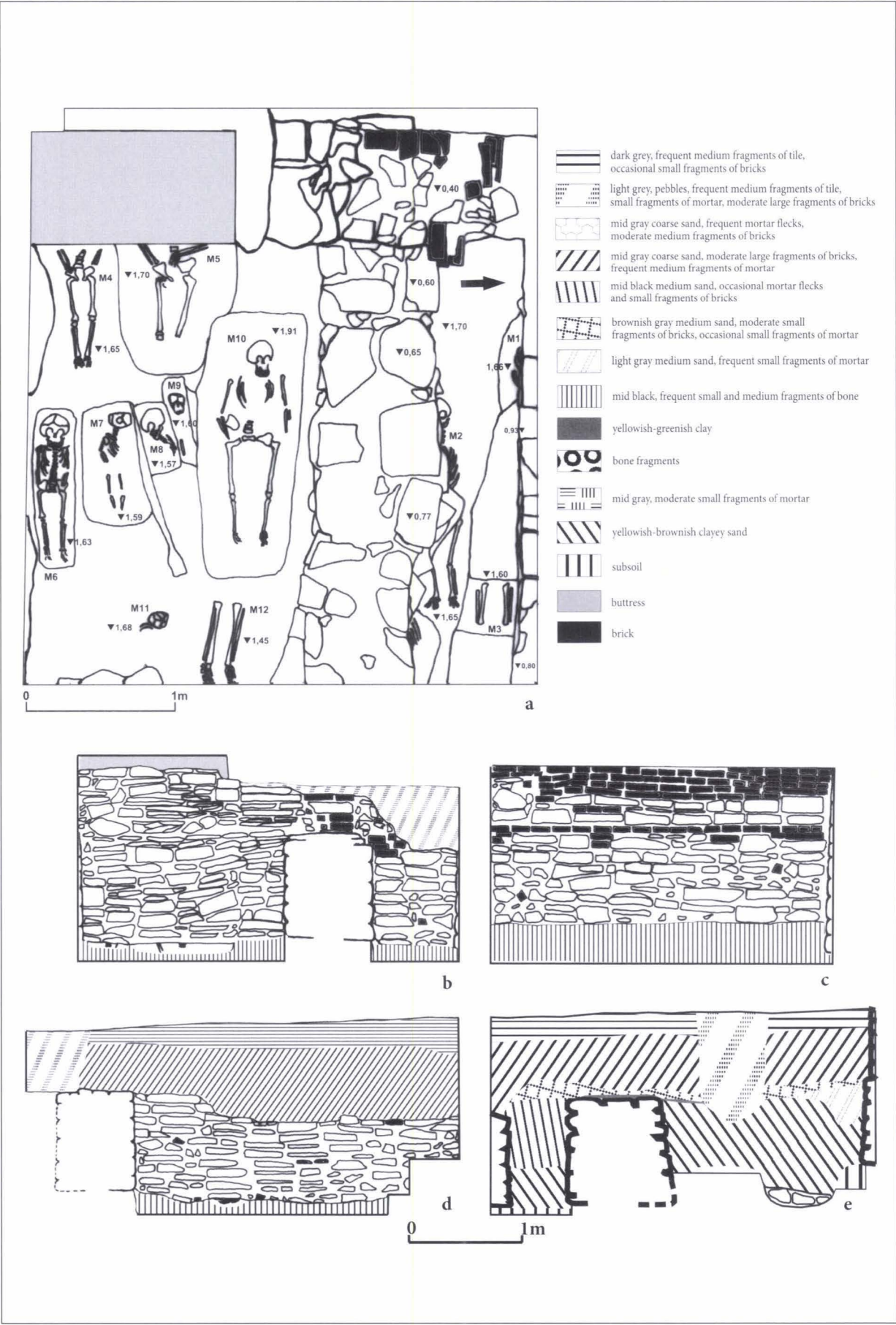


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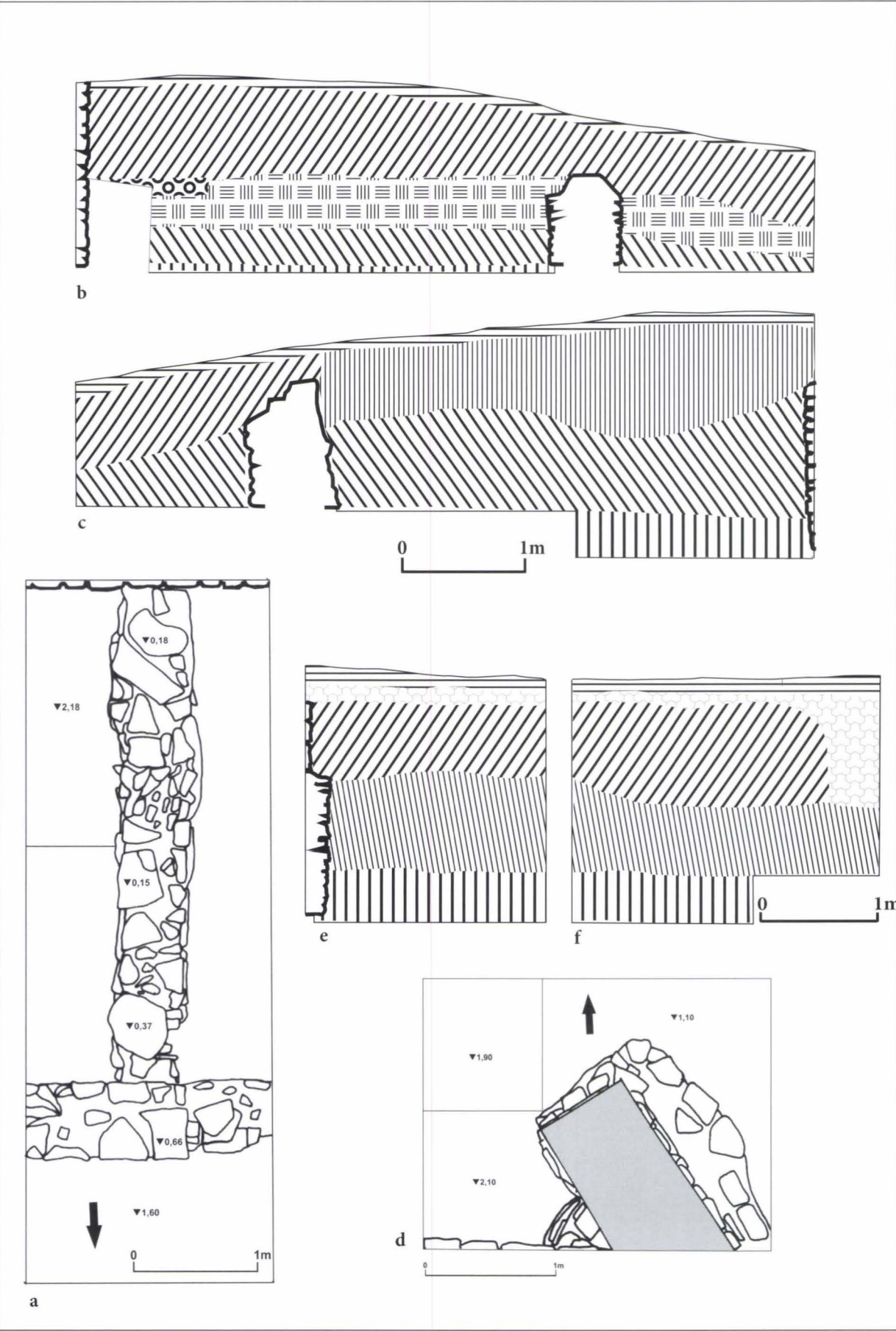


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1



2



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Plate 4. 1. Trench 1 and 2, looking NW; 2. Trench 1 from the north with the foundations of the early (A) and late Gothic (B) sacristy; 3. Trench 1 from the east.



Plate. 5. 1. Trench 3 from the north; 2. Trench 3 from the north with the 14th century foundation;
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BURIALS IN THE TÂRGU MUREȘ FRANCISCAN FRIARY. A FOURTEENTH CENTURY BURIAL WITH DIADEM

ZOLTÁN SOÓS–SZILÁRD SÁNDOR GÁL

Mureș County Museum, Târgu Mureș

Keywords: burial, Franciscan friary, grave inventory, discs, anthropology

The excavation of the former Franciscan friary in Târgu Mureș (Marosvásárhely), revealed a number of unique and important artefacts and objects in the last decade.¹ A particular case was found in the graveyard of the former friary. The excavation of the friary's courtyard initially focused on the former well, identified on the Austrian military map from 1740. This is the first reliable ground plan of the seventeenth century castle and of the buildings within the walls. The castle included the former Franciscan site as well, with the friary situated at the south-western corner of the castle (Fig. 1).

The C28 archaeological trench was excavated on the place of the former well, which appeared in the north-western corner of the trench at 0.8 m depth. Its wall is made out of limestone and round shaped rocks from the river. The well (Pl. 1/1) was 11 m deep and 1.2 m wide and based on the material found in the filling, we could establish that it was in use up until the 1920's. We have found bullets from the First World War and a military hat ornament representing the Hungarian coat of arm, these objects offered a solid ground to establish when the well was filled up. Besides the identification of the well our main goal was to find out since when it was in use.

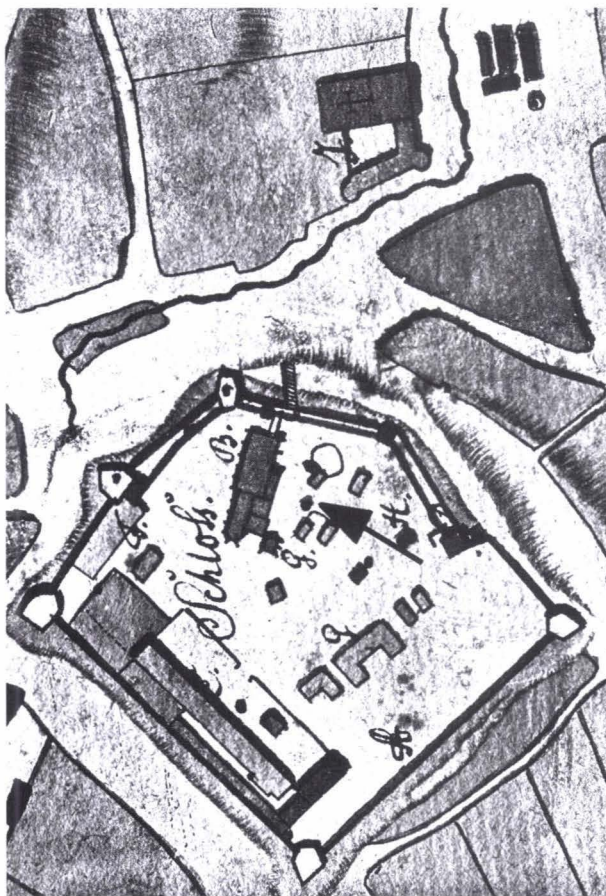


Fig. 1. The Austrian military map of the castle from 1750. The position of the friaries well is marked with an arrow.

¹ The excavation of the former Franciscan friary is supervised by Prof. Adrian Andrei Rusu, it is lead by the author of this article. During the 2008 excavation two archaeologists Zalan Györfi and Rita Németh were the crew members.

The inside of the well could not offer any details regarding the construction data as it was in use and therefore it was regularly cleaned. The well's construction technique brought the necessary clues for the chronological questions. The walls of the well were built of river stone and lime stone. In order to elevate this 11 m deep structure they first dug a deep trumpet shaped whole. The whole was narrow on the bottom and approximately 5 m wide at the top, ensuring in this way the safety of the builders. As the well's wall was erected the trumpet shape whole around it was filled up and compacted with clay. This filling contained a few archaeological artefacts: pottery and a few stove tile fragments. Based on the recovered archaeological material the construction of the excavated well can be dated somewhere at the beginning of the 16th century. Nevertheless this does not mean that the well could not exist on the same spot before this date, it rather means that it was rebuilt at the beginning of the 16th century, in the place of an older one. Still we can question since when there is a well on this very spot because south and east to it we have identified a number of skeletons from the friary's cemetery.

It seems that we have identified the earliest graves of the friary, dated with two 14th century coins (Fig. 2). One coin belongs to King Charles Robert d'Anjou (1308–1342) from the 1330's and the second coin belongs to his son Louis the Great (1342–1382) and it was released in the 1370's.²



Fig. 2. 1. Denarius of Charles Robert from 1327. 1a. Front side with Angevin Coat of Arm; 1b. Back side with a royal figure; 2. Denarius of Louis the Great (1373–1382); 2a. Front side with the Hungarian double cross; 2b. Back side with the Arabian head.

² Unger 1997.

The presence of these two coins in this area means that in the fourteenth century the cemetery was still here and only a few decades later this area could be used for the building of the well. This also means that the friary should have another abandoned well somewhere and we suppose that the Franciscans would not build a well in a functioning cemetery, so the area was not used as a cemetery when the well was built. However the excavation of the well brought other more important information regarding the first functioning period of the friary from the fourteenth century, before the new, large, existing friary church was built at the beginning of the fifteenth century.

The cemetery

The surface of the C28 was 25 m², it was square shaped, 5 × 5 m. In the north western third of the trench we have found the well and the construction pit, besides these we identified in the southern and eastern part of the trench the burials. Twenty graves were unearthed on a 20 m² area. Some of the graves were incomplete either because they were partly outside the trench or because they were destroyed when the well's pit was dug.

In the southern side of the C28 we have identified the foundation trench of an east-west oriented wall. The wall was situated 0.8 m far from the southern profile of the C28 and it was completely demolished. It is also possible that it was never built only its foundation trench was dug. However the trench sectioned and disturbed a few graves.

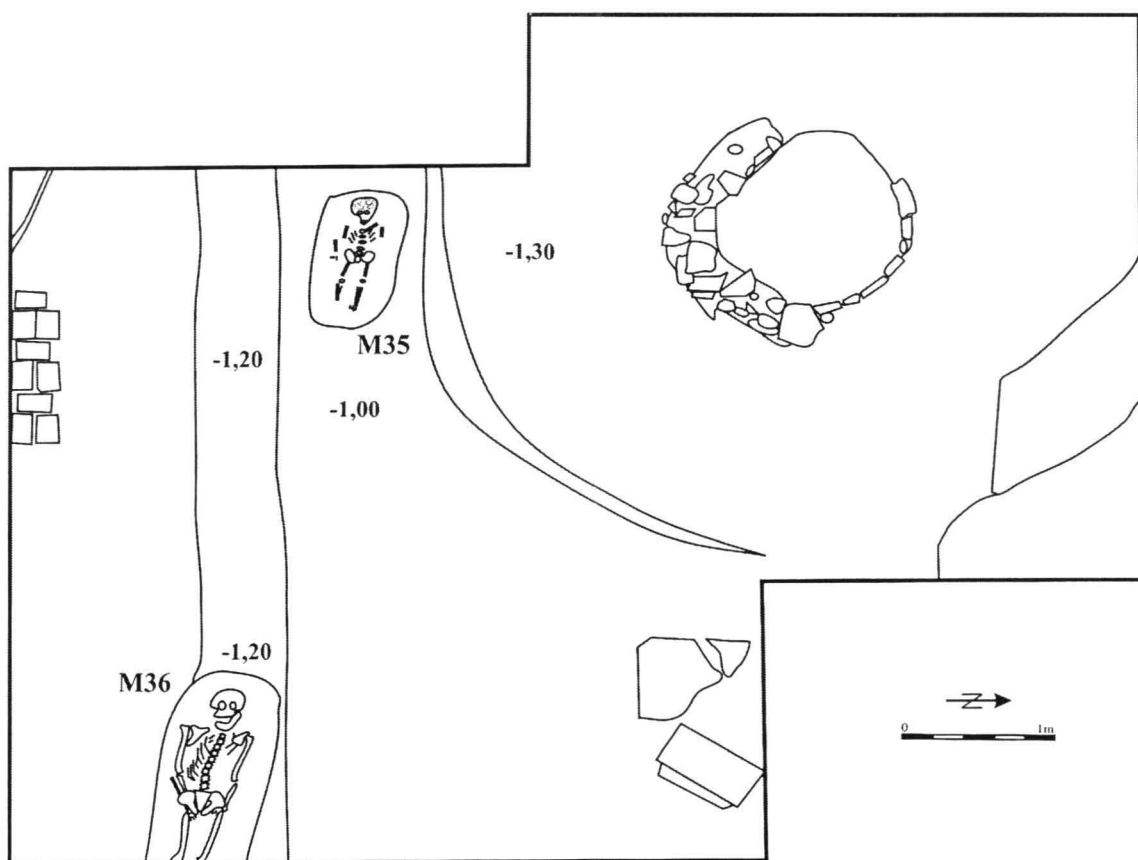


Fig. 3. The first layer of the C28 with the well and the first burials.

At 0.9 m depth besides the well's pit we identified the first grave (M35). It belonged to a child; the remains of the skeleton were 0.85 m long having the teeth well preserved. The second identified grave M36 (age 28–30) was in the 4/a–b sector at 1.2 m depth. It is a well preserved male skeleton; it has 1.25 m length from the skull till the knees, starting from the knees his legs were outside of the trench. His left hand was placed along the body, while his right hand was on the pelvis. These two graves represented the first burial horizon. The grave M37 was identified in the south western corner (5/e) and we have found only a skull, the rest of the skeleton was outside the trench. Below the first layer we identified a second layer with sixteen medieval graves from the 14th century (Pl. 1/2).

The grave M38 (age 50–55) was situated eastwards from M35, the skeleton was oriented towards northeast–southwest, while most of the others are oriented east–west. It is a male burial, the skeleton is only preserved until the pelvis and it is cut by the grave M39. The length of the preserved skeleton is 0.8 m; the distance between the shoulders is 0.4 m. Both hands are placed on the pelvis.

The M39 lays eastwards from the M38, contains a well preserved male skeleton. The length of the skeleton is 1.72 m (with fingers), the shoulders are 0.41 m wide. The hands are placed on the pelvis across each other. The particularity of the grave is the identification of a Charles Robert coin from 1327, identified in the pelvis area. The male (probably friar) was approximately 45–50 years old.

The grave M40 was identified in the eastern profile, only the upper part of the skull was found, the rest of skeleton is outside the trench. The M40 grave pit cut the legs of the grave M41. The M41 (age 15–17) is preserved partially until the pelvis, its length is 0.72 m, the shoulders are 0.27 m wide and it belonged to a young male. The hands were placed along the body.

The grave M42 (age 35–40) situates on the left side (north) of the M39. The length of the skeleton is 1.64 m; the width at the shoulders is 0.41 m. The hands were placed along the body and based on the anthropological analysis this is also a male burial.

The M43 (age 60–65) is on the left side (north) of M42, its length is 1.50 m, the shoulders are 0.34 m wide. The skeleton belonged to a male person, which lost all his teeth by the time of his death. His right hand was placed on the chest, while his left hand was along the body.

The grave M44 (age 40) is 0.89 m long and the shoulders are 0.42 m wide. The skull is missing, only the maxilla was preserved. It seems that the M43 disturbed the upper part of the grave. The left hand is placed on the pelvis, while the right hand is along the body. Based on preserved teeth the skeleton belonged to a male person.

The grave M45 (age 10–12) has 1.24 m length and 0.33 m width at the shoulders. The grave is oriented south–west–north–east and it contains the bones of a young child. The arms of the child were placed on the chest.

The grave M46 (age 45–50) has 1.55 m length and 0.4 m width at the shoulders. The grave is situated south of M39; it has a well preserved robust skeleton. Based on the characteristics of the skeleton it belonged to a male person. The M46 is particular because of the wounds on the left zygomatic bone. His left hand is placed along the body and it is a little bit curved, his right hand is missing, it was probably cut by the grave M49.

The grave M46/a is south to M46, only its skull was preserved in a secondary position and it was probably disturbed by the grave M46. The skull was found near the pelvis of M46. Based on the maxilla characteristic features the skull belonged to a male person.

The M47 (age approx. 50–55) is situated 0.2 m west of M46, only the bones of the right hand, the tibia bones and partly the ankle bones were preserved, the rest of the grave was destroyed by the trench. Based on the characteristics of the tibia bones and on the femur the skeleton belonged to an adult male person.

The grave M48 had 1.57 m length and belonged to a female. The M49 is situated south of M46 and M47, its length until the knees is 1.2 m, it appears to be a male burial. The right side of the skeleton was in the southern profile. The skull of M49 is poorly preserved, the rest of the bones were in a better shape. The left hand is placed along the body. The grave was identified at the depth of 1.5 m.

The grave M50 was identified in the north eastern part of the trench, together with the grave M51. They were placed beside each other; both skeletons are preserved from the pelvis until the ankles. Their upper part is destroyed by the foundation pit of the well, while their lower side was cut by grave M45. The M50 is 0.96 m long, representing the bones of the legs and the pelvis, the M51 is 0.9 m long only the right pelvis and ankle bones are preserved, on the left side only the bones belonging to the leg were found.

The most important burial artefacts were discovered in grave M52 that based on the morpho-taxonomical analysis belonged to a young, ten years old female. The skeleton had approximately 1.14 m length, the bones, except the skull were poorly preserved. From the skeleton the skull, partly the bones of the limbs and the pelvis were preserved. The hands are placed along the body. The uniqueness of the grave stands in the diadem, laid on the forehead. The diadem consisted of bone-made pearls and eight bronze discs out of which seven preserved. Four discs represent a deer, two lily symbols represent the Angevin coat of arm and one disc has a solar symbol. The bronze discs left significant green coloured marks on the frontal bone of the skull.

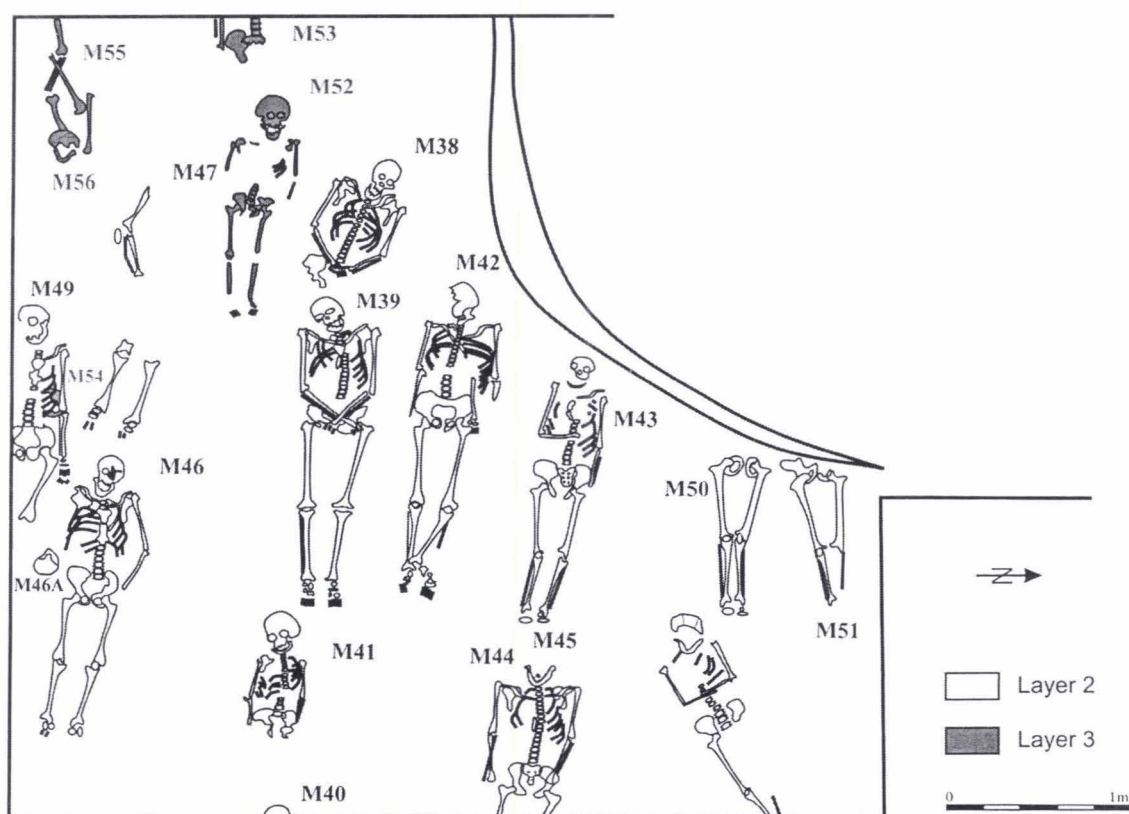


Fig. 4. The second and third layers of the C28 with the grave M52.

The grave M53 is west of M52 and only the right pelvis bone, the right hand and a few vertebrae were preserved. The upper part of the skeleton was in the western profile while the lower part is destroyed by the M52. Because of the low number of the bones the gender of the person is undeterminable.

The grave M54 is situated in the south-eastern part of the trench near the southern profile at the depth of 1.15 m. Only the skull and some rib fragments were preserved from the skeleton. Most of the grave was destroyed by the grave M49.

The last two graves are M55 and M56, both are situated in the south-western corner of the C28. The bones were found in one grave pit, but they belong to two individuals. The anthropological analysis of the bones revealed that the remains belonged to a 2–3 years old child (M56) it was preserved his skull and we have the bones of a 18–23 years old young female. The two skeletons belonged to a mother and her child.

Based on the identified graves and their analysis in the archaeological trench C28 we have 22 burials and burial fragments, out of which 4 were so fragmentary that it was not possible to establish the sex of the individuals. 11 burials belonged to adult male persons, in 2 graves female skeletons were identified and the rest of 5 skeletons were children burials. Out of the five children burials the M52 was the best preserved and based on the anthropological analysis we can establish that it belonged to a young female. The feminine character of the burial was strengthened by the presence of the diadem in grave.

In the Hungarian historiography it was several times debated whether the position of the hands in the grave could have any meaning. Some argued that this could have a special significance or it is part of an ancient habit but finally it was proved that the position of the hands is completely random and it is not probable that they had any meaning³. The random character of the hands' position is revealed in the case of the Târgu Mureş burials as well, as we have 3 graves where the hands were placed on the pelvis, 5 burials when the hands were placed along the body, in case of 2 burials the hands were placed on the chest, in case of 2 skeletons the hands were mixed one along the body and one on the chest. The rest of the 9 graves were fragmentary preserved, therefore we could not identify the position of the hands.

The large number of the male burials proves that the cemetery was first of all used by the friars. In a number of cases male burials could belong to the donors as well. It is almost impossible to establish about a burial if it belongs to a friar or a donor, since the number of the artefacts in the graves is very low according to the medieval burial habits. Therefore there is no difference between the grave of laic or church people.

The presence of child burials means that in some cases members of important donor families or influent people could be buried in the friary's graveyard in case of the donation of money or other goods. Seven graves out of 22 belonged to laic people if we take into account the five children and the two female. We assume that at least two or three male persons could be the father of these children meaning that out of the 22 identified burials 10–11 belonged to non friars. This means that only around 50% of the burials belonged to friars and the rest of the burials belonged to donors. Although in the case of the friary from Târgu Mureş we have no written sources about the income of the friars, from other cases we know that this represented an important part of the friaries' budget. In some cases we know about trials between the parish church and the friary because of the burial rights within a settlement.⁴ In case of Târgu Mureş

³ Hatházy 2004; Selmeczi 1992.

⁴ It is the case of the friary from Sibiu/Nagyszeben.

we assume that the friary was in one hand very popular and powerful enough to obtain burial rights versus the parish church, while on the other hand we believe that only a wealthier class or in exchange of a donation was somebody buried in the friary's graveyard. Probably further excavations will reveal more data not only about the percentage of laic and church people burials but also about the possible family connections within the graveyard.

The grave M52

The grave's (Pl. 1/3–4) particularity is given by the rare accessories we have identified during the excavation of the skeleton of an 8–10 years old female with the remains of a diadem around her skull (Fig. 5). The diadem consisted of 8 discs and 38 bone made pearls. The pearls were probably placed on a thread and surrounded the discs. Both the discs and the pearls were put on a textile that surrounded the head of the lady. The discs were confectioned from bronze and very probably they were silver plated (Pl. 2).

The discs were found on the skull and because of the oxidation their green coloured traces were well preserved (Pl. 3). Unfortunately we do not exactly know the original arrangement of the bone pearls as the textile support vanished during the centuries, but the bronze discs got stocked on the skull therefore we know their exact place. We have eight marks on the skull meaning that there were eight discs. During the excavation we could recover only six discs that were better preserved and one fragment from the seventh disc. The eighth disc was completely destroyed and we could not establish what kind of figure was printed on it. In total we have three kinds of figures, one has a solar symbol, than a heraldic symbol with the Angevin lily and the third figure represents a running deer. The solar symbol is preserved on one disc, on two discs we have the lily symbol and on four including the fragment we have the figure of the deer. The diameter of the discs is around 3 cm. They were produced by pressing.



Fig. 5. The *in situ* discs and bone pearls on the skull of M52.

The analysis of the diadem requires a comparison to other similar finds from the 14th century Hungarian kingdom. We need this larger horizon because in Transylvania it is for now a unique find from the 14th century and all the other analogies are from distant regions, most of them from the central part of the kingdom in the area inhabited by the Cumans in the Middle Ages.⁵ Due to their burial habit they placed in much higher proportion different artefacts in the

⁵ Hatházy 2004.

graves than other communities, although they were also Christians at that time already. We have a larger concentration of these types of diadems and discs at the burials of the Cuman communities. Of course this is not relevant for the everyday use of the diadems and discs; about this we have no references. Although we have a few analogies from other regions none of the identified graves contains the same combination of discs and none of them contains all the three types together. We have analogies for each symbol apart but they appear in other combinations. It seems that the combination of the discs had no special meaning and the discs were combined randomly. This is true in case of the diadem from Târgu Mureş, as well. The figures on the discs are rather influenced by the contemporary fashion and art and one can find them in different contexts such as on stove tiles, floor tiles, manuscripts or even tapestries. This is the case of the very wide spread deer depiction. The figure of the running deer is widely used, it is a popular decoration motif and it could have been borrowed from different hunting scenes from tapestries or manuscripts. The same type of decoration one can see on the late 14th century stove tiles of the royal castle of Diósgyőr,⁶ or on the floor tiles of the Visegrád royal chapel.⁷ On several hunting scenes one can see a very similar depiction of the running deer as it is on the discs, stove tiles or floor tiles.

The second figure represents a heraldic symbol, that is again very wide spread in the whole Central and Western Europe and it represents a lily borrowed from the Angevin coat of arm. The Anjou family reaches the peak of its power and popularity in the 14th century, they became a very influent family from the Hungarian kingdom to Italy and France, therefore it is easy to understand the popularity of the Anjou lily symbol among the decoration symbols and figures. Just as in case of the deer the lily appears on stove tiles, floor tiles⁸ and of course on many other items and artefacts as well. In the case of the lily analogies from other diadems are also known. Its form is a little bit different on the discs discovered at Kiskunhalas–*Fehértó*⁹ and Perkáta–*Kőhalmi-dűlő*,¹⁰ but they were produced with the same technique and probably in the same area.

The third figure represents a solar symbol. This is also a well known decorative figure although it is not so widely used as the previous two figures. The solar symbol has an excellent analogy in the medieval cemetery of Dražovce/Zobordarázs in Slovakia.¹¹ Two types of discs were identified here one with the already mentioned solar symbol and one representing Meluzina the mythological queen. The discs from Dražovce/Zobordarázs are the closest analogies for the discs discovered in Târgu Mureş and it is possible that they were produced in the same workshop.

As we already mentioned, a large number of similar artefacts were identified in the Cuman area situated on the Great Hungarian Plain between the Tisza and Danube rivers. Although the Cuman communities were already Christians, they kept a number of pagan burial rituals and they placed a larger number of objects in the graves of their dead people. Among the objects the diadem discs can be also found. The presence of discs in medieval rural or market town cemeteries and in Cuman cemeteries provides a clue regarding the social status of the individuals in whose grave discs or diadems were discovered. These were produced in a large number in workshops situated somewhere in central Hungary and they could be bought

⁶ Boldizsár *et al.* 2007, 27, 73, 75.

⁷ Marosi 1987, 135.

⁸ Boldizsár *et al.* 2007, 9, 69.

⁹ Marosi 1987, 126.

¹⁰ Hatházy 2004, 314.

¹¹ Ruttkay 2005, 31–57.

at larger fairs or annual fairs probably all over the kingdom. The objects were part of the 14th century gothic clothing fashion and in some cases these clothes were buried together with the bearer. The items therefore were not very expensive and even the rural elite could afford to buy them. In conclusion the ten years old girl in M52 could be from a family that was part of the local elite and they could afford not only the purchase of the diadem but also the burial of their daughter in a Franciscan cemetery. The family could be also among the possible donors of the Târgu Mureș friary.

The results of the C28

The C28 brought other significant results besides the M52. The anthropological analysis of the graves M39 and M42 revealed that the skeletons had a Germanic character. Of course in the 14th century the ethnic character of the graves is not relevant anymore. It is generally accepted that until the 14th century the different ethnic groups colonized in Transylvania were here for already three or four generations, therefore even if they show a certain anthropological features characteristic for an ethnic group these individuals lived in a Hungarian market town and in a Hungarian region. It is possible that the friars discovered in the Franciscan cemetery were of German origins but we do not know their cultural background.

It is important the chronological definition of the archaeological complex. In the case of C28 we could establish a relative and an absolute chronology, as well. The relative chronology was offered by the position of the well versus the cemetery. We can confirm without risk that when the well was built the area was no longer used for burials. Therefore when the well was built around the second half of the 15th century the area was no longer used as cemetery for a few decades. This is also proved by the fact that the well pit destroyed a number of graves (Pl. 1).

The absolute chronology was offered by the two coins (Fig. 2), one identified in the grave M39 and one found without a context. The Charles Robert coin found in the grave M39 gives us an important chronological horizon. The coin based on its catalogue identification¹² was minted in 1327. It is a simple silver denarius and its presence in the grave tells us that the person could not be buried before 1327. Generally a similar silver denarius was not used longer than one or two decades. Of course there is no guarantee that the coin was kept for longer and it was used at the burial. However the presence of the coin let us think that the M39 was buried sometimes between 1330 and 1350.

The graveyard we have found in the vicinity of the well functioned at least from the 1330's until the late 14th or early 15th century. An excellent clue for the *post quem* functioning is the Louis the Great coin (1342–1382) from the 1370's. Even if the coin was not found in a grave still helps to establish a chronological frame for the graves found in C28 and also for the diadem found in the M52. Based on the analogies and on the relative and absolute chronology the girl with diadem could have been buried in the second half of the 14th century around 1370–1400. This chronology is strengthened by the position of the M52 that seems to be among the latest burials in this cemetery part (Fig. 4), since the grave pit disturbed other graves (M47 and M53), while this grave remained free of later intervention. It seems that this was one of the last burials in this part of the graveyard, since there are no other burials that would disturb the graves.

¹² Unger 1997.

The C28 grave's great importance consists in its framing, since we have found the first burial horizon of the friary's cemetery, friary founded around the 1320's. The further extension of the cemeteries excavation could offer new data regarding the market town's early urbanization process, as well.

APPENDIX 1.

Morpho-taxonomical Analysis of Human Remains from the Franciscan Friary from Târgu Mureş – Section C28/2008

In the anthropological study, the age-at-death estimation was based on three criteria: long bone length and skeletal maturity, degenerative changes in the skeleton, and dental wear. The different age groups generally used and the appropriate methods for each age interval are: Infant or *Infans* I–II: dental development skeletal maturity and long bone dimensions,¹³ Juvenile or *Iuvenis*: skeletal maturity.¹⁴ In Adults (*Adultus* and *Senilis*) the method of G. Acsádi and J. Nemeskéri¹⁵ is employed which includes Todd's 1920 method to age the pubic symphysis and the method by R. S. Meindl and C. O. Lovejoy¹⁶ on cranial suture closure. For sex determination anthropologists follow the morphological method of Hungarian anthropologists K. Éry, A. Kralovánszky and J. Nemeskéri.¹⁷ For the calculation of stature several methods are used employing long bones in Romania according to Sjøvold,¹⁸ Pearson-Rösing¹⁹ and Zs. Bernert.²⁰ For dentition the method of Miles could be applied.²¹ The morphological and metric data were collected after R. Martin and L. Saller's method.²²

Grave M38

The skull is in good condition. Cranium: parietal, temporal bones with mastoid process, occipital, frontal and sphenoid bone, the ecto- and endocranial sutures are relatively open. Bones of the face: zygomatic and nasal bones, mandible. Situation of teeth: I2, C, PM1, PM2 (strongly affected by caries, only the root is preserved), M1 (1 – M2 and M3 fall out post mortem), I1, C, PM1, PM2, M3 (2 – M1, tooth lost in life and M2 has fallen after death), I1, I2, C, PM1, PM2, M1, M2, M3 (3 – M3 affected by caries, only the root is preserved), I1, I2, C, PM1, PM2, M1 (lost before the death), M2, M3 (4). Dental formula: 2123. Thorax: axis vertebra, 4 cervical vertebrae, 7 thoracic vertebrae and 5 lumbar vertebrae, sternum (without manubrium), diaphysis part of ribs. Upper limbs: fragments of the left and right shoulder-blades (scapula), left clavicle (l. of bone 137 mm), left humerus (l. of bone 290 mm, diam. of the head 42 mm), right humerus (l. of bone 290 mm, diam. of the head 42 mm), left radius (l. of bone 214 mm) and right radius (l. of bone 214 mm), left ulna (l. of bone 230 mm) and right ulna (l. of bone 230 mm). Bones of pelvis girdle: iliac bone (the right part), ischion bone (the right part). The lower part of the skeleton is missing. Characters of the skull show signs of a male. The situation of teeth, ecto- and endocranial sutures, epiphysis part of long bones show signs of an Adult person (50–55 years). Stature: after the methods

¹³ Stlouklal–Hanáková 1978.

¹⁴ Işcan *et al.* 1984, 1094–1104; Işcan *et al.* 1985, 853–863.

¹⁵ Acsádi–Nemeskéri 1970.

¹⁶ Meindl–Lovejoy 1985.

¹⁷ Éry *et al.* 1963.

¹⁸ Sjøvold 1990.

¹⁹ Rösing 1988.

²⁰ Bernert 2005; Bernert–Kustár 2005.

²¹ Miles 1963.

²² Martin–Saller 1958.

of Sjøvold and Pearson-Rösing, in Martin's classification (after clavicle, humerus, radius and ulna) is 155.86 cm. Pathology: a bone destruction caused by Spondylitis on the lumbar vertebrae. Caries cavity could be observed on PM1 (1) and M3 (3). Epigenetic traits: can be observed a bony torus along the metopic suture.

Grave M39

The skull is preserved fragmentary. Cranium: parietal and temporal bones with mastoid process, occipital, frontal and sphenoid bone, the ecto- and endocranial sutures are relatively closed. On the frontal bone metopic suture can be observed. Bones of the face: zygomatic bones (the surface of the bone is rough), nasal bone, maxilla and mandible (the surface of the bone is rough). Situation of teeth: C, PM1, PM2, M3 (1), C, PM2, M1, M3 (2), I1, I2, C, PM1, PM2, M1 (affected by caries), M3 (3), I2, C, PM1, PM2, M1, M2, M3 (4). Dental formula: 2123. Thorax: atlas and axis vertebrae, 5 cervical vertebrae, 3 thoracic vertebrae, 5 lumbar vertebrae (the last lumbar vertebra is ossificated with the sacrum), fragments from the diaphysis part of ribs, sternum (body and manubrium). Upper limbs: fragments of the left and right shoulder-blades (scapula), left clavicle (l. of bone 155 mm) and right clavicle (l. of bone 155 mm), left humerus (l. of bone 348 mm, diam. of the head 47 mm), right humerus (l. of bone 348 mm, diam. of the head 49 mm), left radius (l. of bone 268 mm) and left ulna (l. of bone 289 mm), right radius (l. of bone 268 mm) and right ulna (l. of bone 289 mm). Skeleton of the hands: metacarpal, carpal bones and phalanges. Bones of pelvis girdle: iliac bones (crista iliaca is developed), ischion bones (incisura ischiatica maior in „U” shape), pubian bones, sacrum. Lower limbs: right femur (l. of bone 471 mm, diam. of the head 52 mm), left femur (l. of bone 471 mm, diam. of the head 51 mm), right tibia (l. of bone 388 mm), left tibia (l. of bone 388 mm), right fibula (without lower epiphysis). Skeleton of the feet: right and left calcaneus (l. of bone 85 mm), right and left talus, metatarsal and tarsal bones, phalanges. The characters of the skull, dimension of long bones, the shape of pubian bone and incisura ischiatica maior in „U” shape shows male character. The situation of teeth, the ecto- and endocranial sutures, epiphysis ends of long bones, the surface of the clavicle show marks of an adult person (45–50 years old). Stature: after the methods of Sjøvold and Pearson-Rösing, in Martin's classification (after the clavicle, humerus, ulna, radius, femur, tibia and calcaneus) is 176.84 cm. Pathology: could be observed caries cavity on M1 (3) and on the last lumbar vertebra appears Spondylitis tuberculosis. Epigenetic traits: can be observed a bony torus and metopic suture on the frontal bone.

Grave M42

The skull is missing. Thorax: axis vertebra, 4 cervical and 3 thoracic vertebrae, fragments from diaphysis part of ribs. Upper limbs: left shoulder-blade (scapula), left clavicle (l. of bone 150 mm) and right clavicle (l. of bone 150 mm), left humerus (without the proximal epiphysis), left radius (l. of bone 249 mm), left ulna (the lower part of the bone is missing), proximal epiphysis of the right ulna. Lower limbs: left (l. of bone 365 mm) and right fibula (l. of bone 365 mm). The dimension of long bones show characters of a male. The dimension of long bones show signs of an adult person (over 30 years old). Stature: after the methods of Sjøvold and Pearson-Rösing, in Martin's classification (after the clavicle, radius, fibula) is 168.82 cm.

Grave M52

The conservation of the skeleton is relatively good. Cranium: parietal bones (is deformed because of the soil characteristics and one could observe bronze marks on the bone), temporal bones without mastoid process, occipital and frontal bone (with bronze marks), the ecto- and endocranial sutures are open. Bones of the face: zygomatic bones (the left part is missing), nasal bone, maxilla, mandible (is preserved fragmentary). Situation of teeth: I1, I2, DC, DM1, DM2, M1 (1), I1, I2, DC, DM2, M1 (2), I1, I2, DM1, DM2, M1 (3), I1, I2, DM1, DM2, M1 (4). Dental formula: 21022 (2 Incisivus, 1 Caninus, 0 Premolar, 2 Deciduous Molar and 2 Molar teeth). Thorax: 3 cervical vertebrae, 2 fragments from diaphysis part of ribs. Upper limbs: fragments of the left and right shoulder-blades (scapula), left humerus (without the lower epiphysis, the cortical layer is 1-2mm), right humerus without epiphysis ends, fragments from diaphysis

part of the left and right ulna, one fragment from the diaphysis part of the right radius. Bones of pelvis girdle: small pieces from iliac bones (the synostosis of the bone is in the second phase), ischion bone, pubian bone and sacrum (on the sacrum an abnormal ossification could be observed). Lower limbs: left femur without lower epiphysis, right femur (l. of bone 290 mm, diam. of the head 30 mm). Skeleton of the feet: left talus, 2 metatarsal bones and 4 tarsal bones and phalanges. The shape of pubian bone (symphysis ossis pubis) and characters of the skull show signs of a female. The ecto- and endocranial sutures, dimensions of long bones, the eruption phases of teeth and the synostosis of ends show a young child, Infans II (9–10 years old). Stature: after the methods of Sjøvold and Pearson-Rösing, in Martin's classification (after the femur) is 124.45 cm. Pathology: on incisor teeth could be observed dental enamel hypoplasias (episodes of disease or poor nutrition).

Grave M55

The skull is missing. Upper limbs: left humerus (l. of bone 310 mm, diam. of the head 42 mm), left radius (the proximal epiphysis is missing) and ulna (l. of bone 247 mm). The dimension of long bones shows signs of a female. The dimension and epiphysis part of long bones show the age of an adult person (23–25 years old). Stature: after the methods of Sjøvold and Pearson-Rösing, in Martin's classification (after the humerus, radius and ulna) is 162.1 cm.

Grave M56

The skull is preserved fragmentary. Cranium: parietal, occipital and temporal bones (the mastoid process is preserved only on the right part), frontal bone. Bone of the face: fragments from the zygomatic bones, maxilla and mandible. Situation of teeth: DI2, DC, DM1, DM2 (1), DI1, DI2, DC, DM1, DM2 (2), DI1, DM1 (3), DC, DM1, DM2 (4). Dental formula: 2102. Sex determination in this case is impossible. According to the eruption phases of the teeth and the ecto- and endocranial sutures, the human remains belong to a young child, Infans I (2–3 years old).

* * *

During the anthropological examination in two cases could be observed the characteristics of the skull (in both situation the cranium is brachicran or hyperbrachicran). The signs of the skull show Alpinoid, Pamiroid and Cromagnoid B characters. People of the Late Medieval communities from Europe had shorter, wider and higher skulls,²³ without having the clear answer of the cause of brachycefalisation. The gradual modification of the cranium could be observed during three periods: 11th–12th centuries, 12th–14th centuries and 15th–16th centuries. Simultaneously with the skull modification the stature of medieval people become higher, without connections between the skull and stature modification. In the Hungarian Kingdom the stature become smaller gradually, caused by the bad nutrition.

The characteristics of height data calculated from measures of long bones were realized five times. The stature of population is medium-high (for female 158–162 cm, for male 168–176 cm high), although in comparison with Central European samples, the stature is medium. The dentition is in bad condition, Prognathia Alveolaris and caries cavity could be observed. The occlusion of the teeth is perfect.

Several pathological and epigenetic cases can be mentioned. Among the diseases of bones the spondylitis on thoracic vertebrae (graves M38 and M39), caries cavity (graves M38 and M39) and tuberculosis on lumbar vertebrae (grave M52) can be mentioned. Epigenetic traits were the bony torus along the midline (arrows) of several bones and metopic suture (graves M38 and M39). Regarding the family connections the same epigenetic traits could be observed on two skulls (graves M38 and M39). Probably they were two brothers or other close relatives.

²³ Éri *et al.* 2005, 125.

	Males	Females	Males	Females	Males	Females
	14 th –15 th centuries	14 th –15 th centuries	11 th –12 th centuries		14 th –16 th centuries	
	Târgu Mureș		Hungarian Kingdom			
Very small	-	-	-	-	-	-
Small	-	-	-	-	-	-
Small-medium	-	-	-	-	-	-
Medium	-	-	-	157.49 cm	-	158.3 cm
Medium-high	-	157.1 cm	168.00 cm	-	-	-
High	171.84 cm	-	-	-	172.8 cm	-
Very high	-	-	-	-	-	-

Fig. 6. Stature after Sjøvold in R. Martin's classification.

Martin no.	Hungary 29 samples		Hungary 12 samples		Székesfehérvár		Târgu Mureș Bolyai High school 2 samples		Târgu Mureș Franciscan Friary 2 samples	
	11 th –13 th c.		11 th –16 th c.		12 th –14 th c.		14 th –15 th c.		14 th –15 th c.	
Individual cranial measurements and indices (8:1)	Cases	Av.	Cases	Av.	Cases	Av.	Cases	Av.	Cases	Av.
	N	X	N	X	N	X	N	X	N	X
	990	76.3	373	79.0	79	80.0	2	85.32	2	85.71
Longitudinal measurements										
1	1020	184.8	408	181.2	95	182.4	2	179.5	2	173.5
5	733	101.9	260	101.4	50	101.7	2	106.5	2	100.0
40	594	97.1	216	95.3	24	96.3	2	-	2	-
Latitudinal measurements										
8	1027	140.4	434	143.1	90	146.2	2	152.5	2	148.5
45	672	132.8	216	133.3	26	134.3	2	130.0	2	135.5
51	808	40.6	312	40.3	55	42.6	2	38.0	2	41.0
Altitudinal measurements										
17	807	134.4	286	134.4	56	135.4	2	149	2	137.5
48	787	70.6	296	69.6	49	70.6	2	73.5	2	77
52	813	33.1	321	33.0	56	33.1	2	34.5	2	35.5
Stature	552	167.6	705	168.8	148	170.3	11	151.70	5	167.17

Fig. 7. Chronological changes of cranial form in samples from Hungary²⁴ and from Târgu Mureș.

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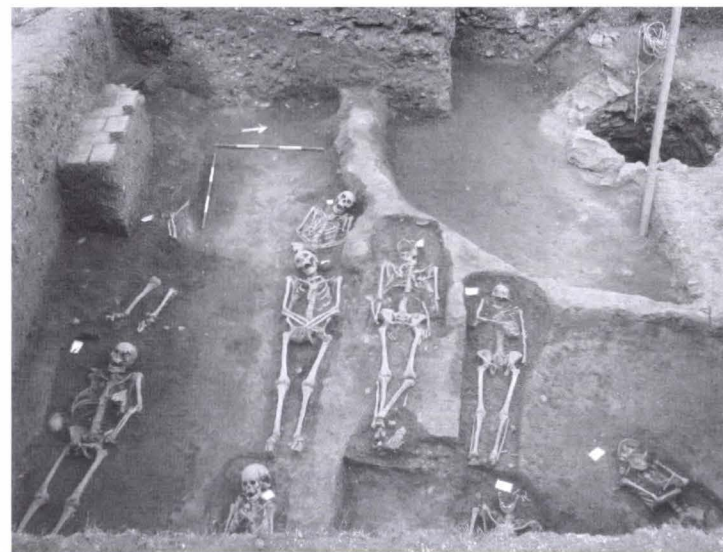
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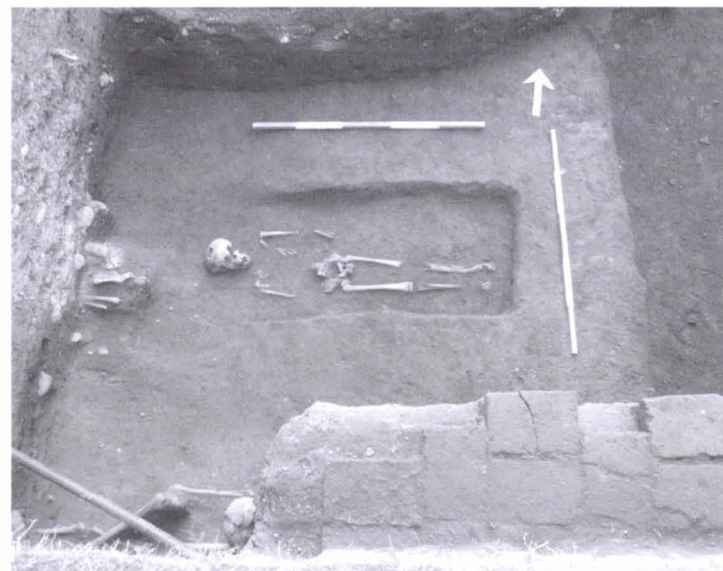
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Plate 3. Skulls from the cemetery of the friary. 1. Gr. M38. Frontal and side face image; 2. Grave M39. Frontal and side face image; 3. Grave M52. Frontal and parietal bones with bronze marks.

LATE MEDIEVAL GRAPHITE WARE IN THE TÂRGU MUREȘ FRANCISCAN FRIARY AND THE STUDY OF IMPORTED POTTERY IN TRANSYLVANIA

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Keywords: 'Austrian pottery', graphite, import, Târgu Mureș, Middle Age

It is only recently that Romanian scholarship started acknowledging the presence of imported pottery in medieval Transylvania, and there exist but a few studies that list fragments of foreign pottery ware among the archaeological finds. The small number of excavations conducted at medieval sites (towns, villages, monasteries and castles) and even smaller number of publications of the archaeological material lead to the obvious conclusion that the thorough study of imported pottery cannot be conducted at this point. The present article however aims to remedy the situation, by analyzing a group of the imported pottery known in the Hungarian scholarship under the term 'Austrian pottery' or in the German as *Graphitkeramik* – umbrella terms encompassing the pottery products of workshops from Austria, characterized by the presence of graphite in the clay paste in order to make the vessels more resistant. The article will offer an overview of the previous research on the material found in medieval Transylvania and identify the concrete sites. It will conclude by interpreting the finds within a larger context of trade networks in the medieval Kingdom of Hungary, thus offering one of the possible lines of inquiry that could be taken in future research on this material.

Although the issue of imported pottery has been largely neglected in Romanian scholarship, the most recent publications identify the presence of types of pottery that differ from the locally produced ones. This difference can be observed in the quality of paste, forms and decoration. The significance of imported pottery has been thus far highlighted by Adrian Andrei Rusu,¹ whose initial inquiries of the subject have been corroborated by research of Dana Marcu-Istrate. Her investigation at the cathedral and bishop's palace in Alba Iulia revealed new fragmentary pieces of graphite pottery.² Yet the issue of this type of pottery was raised on a broader regional level much earlier. As far as the territory of medieval Hungary is concerned, the first study of imported pottery (which included Austrian products) was published in 1955 by Imre Holl.³ Holl's research represented an important step for the medieval pottery studies, since his work introduced the Hungarian material into the discussion on 'Austrian pottery' in the region. Indeed, research

¹ Rusu 2008, 291–301.

² Marcu-Istrate 2008.

³ Holl 1955, 147–199.

was being done by that time already in Austria, but later also in Slovakia, Czech Republic and Serbia.⁴ The publications that deal with the question of graphite ware provide a strong basis for drawing analogies and dating forms, and thus represent indispensable material for analyzing the Transylvanian finds. The earliest literature about Austrian graphite tempered pottery from the nineteenth century, which is still used today, highlighted the role of Vienna as the sole major production and exporter centre while neglected the research of other production places. Parallel with this opinion an opposite view emerged, which argued that Vienna was considered an important late medieval pottery production centre due to a misinterpretation of the Council's decision from 1431. Both opinions lead to perceive the other existent Austrian production sites less important than Vienna and to the detriment of smaller places like Obernzell (next to Passau) up to their apparent disappearance in the absence of identifiable products.⁵

Sites

One of the sites where graphite ware was identified is the Franciscan friary of Târgu Mureş (Marosvásárhely). The friary lies on the south-western edge of a terrace of the Mureş River. Due to the small number of excavations the urban topography of the town is still unclear, but it is likely that the friary stood on the northern part of the town. From the building of the friary, the church, tower, sacristy and a part of the chapter house have been preserved. The church was located on the southern part of the friary. In 1999 with the start of archaeological excavations the western wall of the chapter house was revealed as an extension of the western wall of the eastern wing of the friary buildings.⁶ Also two other parallel walls (with the western wall) were found which represent the walls of a central corridor in the building with cells that lay on both sides. This kind of display reflects a specific arrangement to the Observant branch of the Franciscans. The historical and archaeological research indicates four construction phases. The first is displayed with the use of the chapter house as a church, in the beginning of the fourteenth century. This was the only stone building identified from this period. Several wooden remains discovered during the excavations in 2006 indicate that other buildings of the friary were made of wood. The second phase was dated to the end of the fourteenth and the beginning of the fifteenth century. In this period the church was built along with the eastern and northern wings of the friary. The third phase is connected with transferring the friary to the Observant branch of the Franciscan order and it can be dated to the 1440's, then in 1442 the tower was built with the support of John Hunyadi, Voivode of Transylvania. The last construction phase is represented by the fortification of the friary. Two towers remained from the 1480 construction.

Five out of six fragments of graphite ware were found in the fill of L2 context of the trench C25 excavated in the year 2008. Only one shred was found in the year 2004 in the spoil heap of the canalization works in front of the gate tower. Therefore this piece can be dated only by its form based on analogies without knowing its archaeological context. The above mentioned five fragments were identified during the selection of the pottery and their context is known and dated.⁷ Trench C25 was opened on the outer part of the southern wall of the refectory, more

⁴ Conference about early medieval graphite ware, see: Poláček 1998. Publications: Walcher v. Moltheim 1910, Birtašević 1970, Nekuda–Reichertová 1968, Nekuda 1975, Mittelstraß 2007, Scharrer-Liška, 2007.

⁵ Mittelstraß 2007, 268.

⁶ Soós 2003, 259.

⁷ The fragments are stored in the deposit of the County Museum of Târgu Mureş.

precisely on the outer side of the defensive ditch of the friary. In this trench traces of a wooden construction (context L2), dug into the ground to a depth of 1.80 m from the medieval walking level, were revealed. The wooden building was raised on six round shaped wooden posts as the remaining holes indicate. The eastern and western side of the building was 3.40 m long while the northern and southern part was 2.8 m. Between the post holes, situated on the corners of the building, traces of beams were visible, which probably formed the walls of the building, dug into the walking level of the construction. The construction technique of the walls is not known. During excavation it became clear that the construction was filled with refuse material from the friary which indicates that the building was demolished during the functioning of the friary. The filling of the context already started at the end of the fifteenth century and by the beginning of the sixteenth century the wooden building was demolished. Only one coin dates the structure, a silver denar issued by Ferdinand I in the year 1543 thus offering a dating for the finds as well.

Four fragments are hooked rims which curve sharply downwards into a semi-circle, representing a type of graphite cooking vessel characteristic to the end of the fifteenth and the sixteenth century produced on the territory of Austria.⁸ Specific features of these wares are the thickness of the rims and the use of a special type of clay containing graphite which cannot be found just anywhere. Such a place is the graphite-rich hinterland of Passau which substantiated pottery production since the 1220's, especially in Passau but in the surrounding region, as well.⁹ Since two fragments from the friary material have visible workshop stamps¹⁰ on the rims, the possibility to attempt to localize their production place arises. One of the stamps is intact and shows a cross, above it a parallel line in an oval circle, a so-called "cross-transom" mark (see Pl. 1/1). A recent publication dates the use of this stamp to the beginning and middle of the sixteenth century based on the finds from Obernzell as well as other analogies.¹¹

The use of workshop stamps is a still debated issue¹² which has at its central point the Viennese Council decision from 1431 which offered protection to the producers and buyers of real graphite pottery from cheap vessel imitations by means of inserting certain rules that should have been applied through Vienna to all Austrian pottery. It states that only the pottery containing graphite should be marked with the compulsory 'Austrian sign' but also an additional workshop sign or a simple cut should be added to the vessel. It is clear that this decision wasn't fully respected because in 1527 the Archduke Ferdinand had to assert it again.¹³

The production place of Obernzell belonged to the High Passau region since the early thirteenth century. The first actual mentioning of the pottery from Obernzell as import article can be found in the rules of the potter's guild of Regensburg from 1509.¹⁴ Documents mention the export of crucibles and of the 'iron-coloured wares' indicating the origin of the products as Obernzell and the graphite-clay sources from the Bavarian forest. As written sources and archaeological finds indicate the products of this centre were traded on the Danube as well as in the neighbouring areas but the extent of its exports cannot be estimated because consensus has not been reached in the scholarship regarding the important workshop stamps and their allocation

⁸ Holl 1975, 129-149; Tóth 2006, 53.

⁹ Mittelstraß 2007, 268.

¹⁰ These marks started to be used from the thirteenth century onwards (Bertalan 1998, 181).

¹¹ Finds from Belgrad, Saldenburg, Passau, Salzburg, Riederberg, Murnau, Lassig (Mittelstraß 2007, 274-281).

¹² See a detailed discussion in Mittelstraß 2007, 285-307 and Scharrer-Liška 2007, 23-24, 71-73.

¹³ Mittelstraß 2007, 269-270.

¹⁴ Bauer 1980, 24.

to certain production centres.¹⁵ Among the Obernzell rim marks one can find the 'cross-transom' mark,¹⁶ the 'V' mark and the 'ram' mark,¹⁷ besides these stamps also secondary signs were used to mark the rims of the vessels such as the cross in a circle, impressions of fingers or cuts but many points of this issue are still not cleared. The above mentioned rim fragment from the friary bares a 'cross-transom' stamp in an oval shape and the form of the vessel shows similarities to the analogies from Hungary, Austria and Serbia. Based on these features and the coin from the L2 context the piece can be dated to the middle of the sixteenth century. The stamp on the second rim is barely visible because of its fragmentary state, only a part of a cross-like shape in a circle can be recognized (see Pl. 1/2).¹⁸ Its hooked thick partially preserved rim and the coin found in L2 sets the dating again to the first half of the sixteenth century. Although further more detailed research is still needed in this field it can only be hypothesized that these two rim fragments could originate from the town of Obernzell based on the similarity of the workshop marks. The other two rim fragments were also dated to the beginning and the middle of the sixteenth century based on the finding context as well as on formal indicators (see Pl. 1/3, 4).

The graphite ware fragments found in the excavation of the Alba Iulia (Gyulafehérvár) cathedral and the bishop's palace was published in a volume and an exhibition catalogue.¹⁹ Three fragments were identified without relevant archaeological context and based on analogies they were dated to the fifteenth and seventeenth centuries. Two fragments are mentioned as bottoms of crucibles, one of them bears green glaze on the inside while the third fragment comes from a rim of a large vessel.²⁰ Although it is known that crucibles usually have a triangular shape and thicker walls than cooking pots, in the case of these two base fragments the question remains opened whether they come from crucibles. Another set of graphite ware was published in the exhibition catalogue.²¹ One of the fragments is the upper part of a graphite ware very similar in shape to the ones found on the territory of the Franciscan friary from Târgu Mureş. This fragment bears a stamped 'T' letter on its rim which according to the author alludes to the production place of the vessel identified as Tulln am Donau.²² Although the exact finding place of this fragment was not specified it was dated to the fourteenth century even if its form represents a later shape. Other five pieces mentioned as crucibles consist of three bases, one rim and one handle fragment; all were dated to the fifteenth and seventeenth century with no description of the exact finding place.²³ The handle fragment has a workshop stamp on its upper end in form of a shield but it is not described in details so it cannot be ascertained to any production place.

The graphite tempered pottery fragments indicate that certain connections existed between the Mureş region of the Hungarian Kingdom and Austrian territories where graphite-clay could be found. Even if this is a small sample it underlines the urbanized character of the market town, in the period when according to written evidence the town received the market

¹⁵ Mittelstraß 2007, 272–285.

¹⁶ In German: *Kreuz-Querbalken-Marke* (Mittelstraß 2007, 275, Abb. 23, 280, Abb. 26, 281, Abb. 27). This mark can appear also inside oval or shield like forms.

¹⁷ In German: *Widder-Stempel* (Mittelstraß 2007, 278, Abb. 25/2).

¹⁸ Mittelstraß 2007, 275, Abb. 23.

¹⁹ Marcu Istrate 2008, Marcu Istrate 2009.

²⁰ Marcu Istrate 2008, 214–215, 427, 438, 523, Table 184/ nr. 6, 9.

²¹ Marcu Istrate 2009, 290, 268/225.4.

²² Marcu Istrate 2009, 126.

²³ Marcu Istrate 2009, 213.

right of free royal towns.²⁴ When discussing trade and trade networks, the graphite pottery group found among the Târgu Mureş material can offer interesting insights. Only a minor part of the Kingdom of Hungary experienced the effects of urbanization during the fourteenth and fifteenth century.²⁵ Yet even the predominantly rural parts, like the Szekler land for example, experienced trade benefits through the mediation of market towns. A form halfway between a village and a town, this new type of settlement emerged, fulfilling the function of regional economic centres. Due to the fairs, market towns acted as centres for the distribution and circulation not only of locally produced goods, but, more significantly, imported goods mediated through merchants from larger towns. These centres served the needs of the regional elites and peasantry alike.

Previous research did not identify *Austrian ware* in Transylvania, so at the time when Imre Holl was working on this subject he had no available data to use so he set the Tisza River as the limit of its easternmost spread.²⁶ However, the presence of this particular pottery at the Târgu Mureş friary, as well as from the bishop's palace and cathedral from Alba Iulia,²⁷ changes this limit and pushes the boundary until the eastern Carpathians. These finds raise new perspectives on the circulation of goods in the kingdom of Hungary. Written sources remain silent about pottery trade, but they record the salt transported from Transylvania towards Szeged (from here spread to other regions) via the Mureş River.²⁸ Waterway trade was more efficient for bulky items, cheaper, faster and safer at the same time, while continental long distance trade would not have been profitable for merchants selling pottery because it was both fragile and heavy. Thus, one can assume that other kinds of merchandise, such as large quantities of pottery, were also transported on waterways in the direction of Transylvania, as in the case of the Danube, for which there is clear evidence that it allowed 'Austrian ware' to reach Buda and the Balkans from the sixteenth century onwards.²⁹ Thus, the picture of late medieval Târgu Mureş as reconstructed from the written sources – the picture of a market town, a regional economic centre actively participating in the trade network of the kingdom – can be substantiated by pottery evidence.

APPENDIX

List of the fragments

1. *Rim fragment of a cooking pot*, Pl. 1/3. Târgu Mureş–Cetate 2008, C25, G2, D. = 0.47–0.95 m, from the fill of pit 2.
Production technique: fast wheel; fine shiny dark grey paste; sand and graphite temper; complete reducing firing; dark grey surface colour; without surface finish; not decorated. Diam. = 24 cm, Th. = 0.8–1.7 cm. Date: beginning and middle of the sixteenth century.
2. *Rim and neck fragment of a cooking pot*, Pl. 1/1. Târgu Mureş–Cetate 2008, C25, G2, from the fill of pit 2.

²⁴ In 1482 King Matthias Corvinus gave this right to the town of Târgu Mureş (see: Pál 2003, 59).

²⁵ Engel 2001, 251.

²⁶ Holl 1955, 168.

²⁷ Recent archaeological finds show that this pottery is more frequent in Transylvania than it was previously thought to be (Rusu 2008, 295–296; Marcu Istrate 2009, 49–50, 61). The most comprehensive work on pottery, both imported and local tableware, in the Carpathian Basin was done by Imre Holl, although most of his work was published at a time when no comparative material was available from Transylvania (Holl 1955, 147–199; most recently, with reference to his previous works in the field: Holl 2005, 311–384).

²⁸ Iambor 1982, 75–85.

²⁹ Mittelstraß 2007, 268–269.

Production technique: fast wheel; fine dark grey paste; sand and graphite temper; complete reducing firing with secondary burning marks or a possible black slip; dark grey surface colour; surface finish: possible black slip (?); decorated on the rim with a workshop stamp figuring a cross in an oval circle. Diam. = 15 cm, Th. = 0.4–1.5 cm. Date: beginning and middle of the sixteenth century.

3. *Rim and neck fragment of a cooking pot*, Pl. 1/2. Târgu Mureş–Cetate 2008, C25, G2, from the fill of pit 2.

Production technique: fast wheel; fine light grey paste; sand and graphite temper; complete reducing firing with secondary burning marks, re-used after it was discarded, indicated by mortar remains on the fragment; dark grey surface colour; without surface finish; decorated on one of the ends of the rim with barely visible traces of a possible workshop stamp (a cross in a circle?). Diam. = 24 cm, Th. = 0.5–2.5 cm. Date: beginning and middle of the sixteenth century;

4. *Fragment of wall of a cooking pot*. Târgu Mureş–Cetate 2008, C25, G2, from the fill of pit 2.

Production technique: fast wheel; fine dark grey paste; sand and graphite temper; complete reducing firing with secondary burning marks; dark grey surface colour; without surface finish; not decorated. Th. = 0.7 cm; size: 6.5 × 4.5 cm. Date: probably sixteenth century.

5. *Fragment of wall of a cooking pot*. Târgu Mureş–Cetate 2008, C25, G2, from the fill of pit 2.

Production technique: fast wheel; fine dark grey paste; sand and graphite temper; complete reducing firing with secondary burning marks; dark grey surface colour; without surface finish; not decorated. Th. = 0.6 cm; size: 5.5 × 3.6 cm. Date: probably sixteenth century.

6. *Rim and neck fragment of a cooking pot*, Pl. 1/4. Târgu Mureş–Cetate 2004, from the canalization works in the front of the tower gate.

Production technique: fast wheel; fine dark grey paste; sand and graphite with pebbles temper; complete reducing firing with secondary burning marks; dark grey surface colour; surface finish: black slip; decorated with incised lines. Diam. = 24 cm, Th. = 0.5–2.5 cm. Date: beginning of the sixteenth century.

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LIST OF PLATES

Plate 1. Târgu Mureș–Franciscan friary. Graphite ware fragments. 1–2. fragments with workshop stamps.



Plate 1. Târgu Mureş–Franciscan friary. Graphite tempered vessel fragments.

1–2, fragments with workshop stamps.
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ARCHAEOBOTANICAL ANALYSES CARRIED ON MACRO-REMAINS FROM TÂRGU MUREȘ-FRANCISCAN FRIARY (2007 CAMPAIGN)

BEATRICE CIUTĂ

Systemic Archaeology Institute, Alba Iulia

Keywords: macro-remains, cereals, diet, Middle Age

The present study displays the results of archaeobotanical analyses carried on the vegetal macro-remains collected during the archaeological campaign of 2007, from the warehouse of the Franciscan Monastery located inside the medieval city of Târgu Mureș.

The results obtained and presented in this study are particularly important because they are the first archaeobotanical data gathered for a site belonging to the Middle Ages period in Romania. Perhaps it was considered that written evidence it is sufficient to reconstruct the diet of medieval populations. But as far as our knowledge goes, no publications that use such sources to reconstruct the diet of populations in the Middle Ages exist (referring to the space of our country). Moreover, the information obtained from the holders of the excavation seems to prove that this archaeological context is one of great importance for the entire Central European space in the Medieval period, because due to the large amount of seeds that have been retrieved at this site, we can have a perspective of the different crops grown by the communities that lived in this period.

During the 2007 archaeological campaign, a number of bags with soil samples have been collected from the section C13. This soil contained carbonized remnants that have been used to determine the species of plants that were grown in the Middle Ages in this area. 38 samples of soil, each weighing 40 litres¹ were processed. In addition to this, in 2006, 16 samples of soil coming from the same context² have been studied. We have studied a total of 54 samples of soil, each weighing 40 litres. Consequently we can say that in the present case the taxonomical composition of the samples is very clearly shown.

Soil samples were processed in the Archaeobotanical Laboratory and the sieves used in the selection process were 1.6 mm and 0.8 mm. Identification of the macro-remains was made using a stereomicroscope and based on their external morphological features.³

¹ Quantity is measured in plastic buckets using the litre unit. It is a standard procedure in archaeobotanical studies for weighing archaeological soil samples.

² Ciută 2009, 217–224.

³ For identification, Săvulescu *et al.* 1957, Körber-Grohne 1994 and Renfrew 1973 have been used. For the scientific names of the species see Zohary–Hopf 1988.

The identification analysis of the vegetal macro-remains showed that the most dominant species that appeared within the 38 samples that we had was *Triticum aestivum* (an approximate value of 70%), followed by *Pisum sativum* (15%) and *Secale cereale* (10%). Very rarely we have encountered seeds of *Triticum monococcum* and *Hordeum vulgare* species (0.5%) (Fig. 1). As for fruit species, the presence of *Prunus* sp⁴ was confirmed.

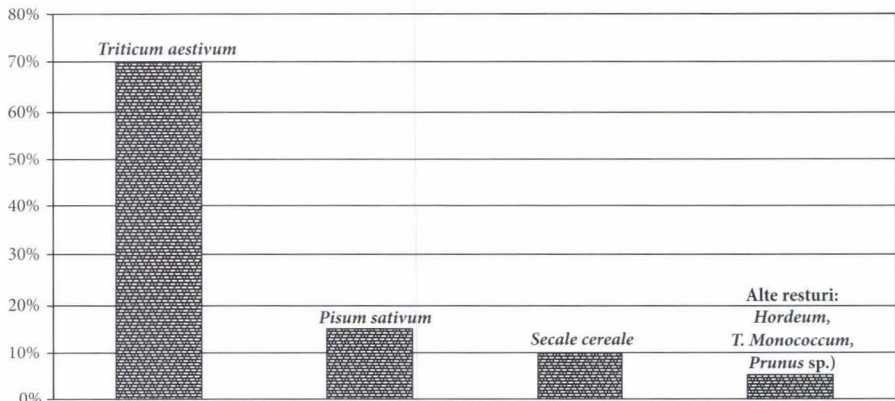


Fig. 1. The shares of different plants gathered in the campaign of 2007.

Triticum aestivum is a species of hexaploid wheat, which had evolved through selective growing from its domestic ancestor, the tetraploid wheat, *T. turgidum* (Fig. 2a). Unlike diploid and tetraploid wheat, this one does not have a wild hexaploid equivalent / pair. Studies of the genomic analysis have shown that *T. aestivum* is a product of hybridization between a tetraploid wheat like *turgidum* (AABB genomic constitution) and a wild diploid type of grass, *Aegilops squoarroso* L. = *Ae. tauschii* Coss. (DD genomic constitution). In other words, the hexaploid bread wheat was formed by adding a third genome, besides the already existing two in *T. turgidum*.

Secale cereale is a characteristic grain harvest within the temperate areas (Fig. 2b). It is particularly appreciated in northern and Eastern Europe, due to its winter and drought resistance and ability to grow on acidic, sandy soils. This way it manages to survive in situations where wheat frequently fails to grow. Rye grains contain significant quantities of protein and “rye bread” can be baked of a dark colour; in the present times the baking quality of rye flour is now lower than that of wheat. A large quantity of the world’s rye production is consumed as rye bread; grains are also used as high energy food and for the preparation of rye whiskey. The green plants are widely used as food for domestic animals. Unlike most grain crops that are self-pollinating, rye is a cross-pollinating plant. The rye species that are grown belong to some small types of grass plants. The most recent classifications recognize three biological species within this genus. All are diploids with 2n = 14 chromosomes. Other intrusions occurring in small quantities in our samples belong to the wheat species *Triticum monococcum* and the barley species *Hordeum vulgare*.

According to written sources from the Middle Ages, *Triticum monococcum* was grown in small amounts in order to compensate for possible losses of the crop in the event of unfavourable weather. This is the reason why we find it in many situations in archaeological contexts belonging to this period. Although *einkorn* type wheat has a slow growing rate, thus allowing the crop to be invaded by weeds, it is also the most cold resistant in the winter season.

⁴ For a detailed analysis of the proportion of species within each sample, see Table 1.
<https://biblioteca-digitala.ro> / <http://muzeulmures.ro>

Einkorn type wheat is the only cereal which, due to the particularities of its ear, can withstand long rainy periods.⁵ The *einkorn* wheat species is a small plant, rarely exceeding 70 cm in height, with a relatively poor turnout, but it can survive on poor soil where other types of wheat would not endure. Its yellowish flour is nutritious, but it reduces the bread's rising quality when baked. Despite this, *einkorn* wheat was consumed mainly as porridge or boiled.⁶

Peas, *Pisum sativum*, are an important source of proteins for human consumption (Fig. 2c). The seed contains proteins in a proportion of approximately 22%. At the present time, peas are classified as the second most important vegetable in the world. Peas are a diploid crop ($2n = 14$ chromosomes) and mainly self-pollinating. As a consequence of the self-pollinating system, variations in species of peas are divided in numerous evolutive lines.

The discovery of the two fruit kernels belonging to the *Prunus* species is not something unusual (Fig. 2d). That fruit would have been a normal occurrence in the communities' diets in those times. It was consumed fresh, but plums could also be baked or dried for storage over winter.



Fig. 2. a. *Triticum aestivum*, b. *Secale cereale*, c. *Pisum sativum*, d. *Prunus* sp.

* * *

In order to achieve a clear approach of the context surrounding plants cultivated by communities of that time one must not omit an important aspect of the era, namely the climate in the period we are referring to. Climate has always played a decisive role in the process of cereal cultivation. According to specific studies of the period under discussion, the climate was favourable to plant cultivation, as illustrated by the graph below (Fig. 3). Thus, one could presume that there were no unfavourable external factors which would influence crop quality. It is a known fact that crop rotation was employed in the Middle Ages. Thus, cereals were cultivated in the first year, vegetables the next, and in the

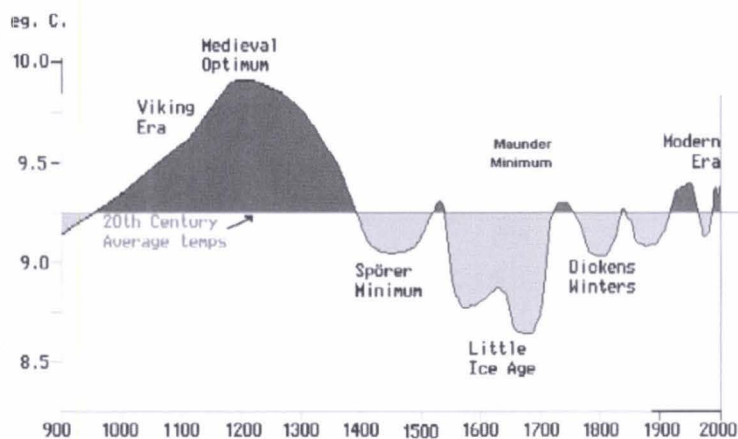


Fig. 3. Climate fluctuations in the last millennium.

⁵ Kreuz *et al.* 2005, 244.

⁶ Zohary–Hopf 1988, 28.

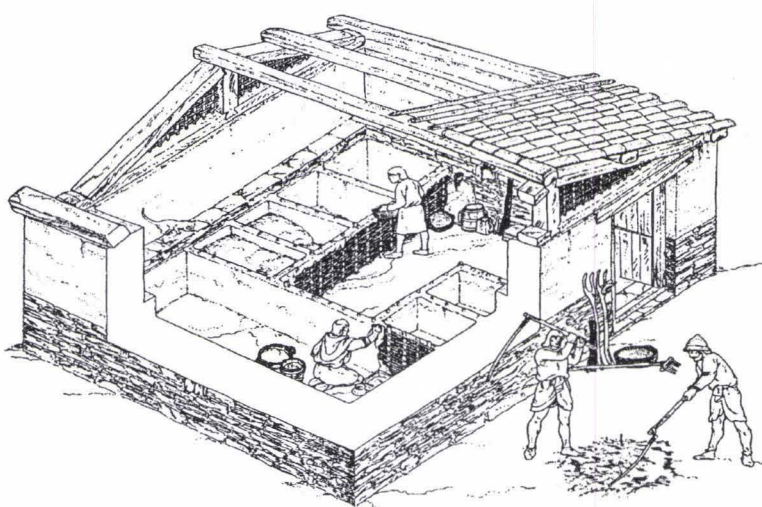


Fig. 4. Hypothetical reconstruction of a medieval storehouse (after Cubero i Corpas *et al.* 2008, 91, fig. 7).

that the list of discovered species is consistent with the typical harvest produced by populations of the middle ages. However, in most situations, the prevalence of *Triticum aestivum* is found in the case of people with a high social rank, whereas rye, *Secale secale*, was found to be predominating in peasant communities. It is a known fact that peasants were forced to pay terrage to the master of the lands they lived on; this included cereal harvests. Most of the time, the terrage included the best grains of the crop. In the future, by way of new contributions we will bring to the study of cultivated and preferred plants of the period, we will attempt a more ample reconstruction of the diet of medieval populations.⁹

third year, the land was left uncultivated in order to regain its fertility.

Regarding the spaces used to store produce, some studies have attempted to reconstruct the placement, as well as inner partitions of such a space (Fig. 4).⁷ There was a preference regarding placement and internal layout depending on the type of crop.

Comparing the results we obtained with others that exist related to this time period in other areas of Europe,⁸ we could ascertain

Sample nr.	<i>Triticum aestivum</i>	<i>Secale cereale</i>	<i>Pisum sativum</i>	<i>Prunus sp.</i>	<i>Hordeum vulgare</i>	Others
1	75%	4%	15%			1%
2	70%	4%	25%			1%
3	70%	5%	20%			5%
4	75%	4%	15%			1%
5	70%	4%	25%	1 kernel		1%
6	80%	4%	15%			1%
7	35%	5%	15%			50%
8	50%	5%	15%			30%
9	18%	5%	7%			70%
10	35%	10%	5%	1 kernel		50%
11	70%	9%	20%			1%
12	10%	5%	15%			70%
13	65%	10%	20%			5%
14	55%	15%	25%			5%
15	75%	8%	25%			2%
16	70%	5%	20%			5%
17	60%	10%	25%			5%
18	35%	5%	20%			40%
19	70%	8%	20%			2%
20	30%	5%	5%			60%
21	75%	4%	20%			1%
22	60%	10%	25%			5%

⁷ Cubero i Corpas *et al.* 2008, 85–94.

⁸ Ruas 2005, 400–415; Borojević 2005, 453–464.

⁹ Translated by Andrada Bubău.

Sample nr.	<i>Triticum aestivum</i>	<i>Secale cereale</i>	<i>Pisum sativum</i>	<i>Prunus sp.</i>	<i>Hordeum vulgare</i>	Others
23	75%	5%	15%			5%
24	60%	10%	20%			10%
25	70%	6%	20%			4%
26	75%	5%	15%			5%
27	40%	5%	15%			40%
28	18%	2%	5%			75%
29	30%	2%	18%			50%
30	70%	5%	20%		1%	4%
31	35%	2%	17%		1%	45%
32	15%	1%	4%			70%
33	25%	10%	5%			60%
34	70%	4%	15%		1%	10%
35	70%	4%	20%		1%	5%
36	65%	5%	10%			20%
37	70%	5%	15%			10%
38	60%	2%	18%			20%

Table 1. Proportion of species within the samples.

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- Fig. 2. a. *Triticum aestivum*, b. *Secale cereale*, c. *Pisum sativum*, d. *Prunus sp.*
- Fig. 3. Climate fluctuations in the last millennium.
- Fig. 4. Hypothetical reconstruction of a medieval storehouse (after Cubero i Corpas *et al.* 2008, 91, fig. 7).
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Bartosiewicz László–Gál Erika–Kováts István (Ed.), *Csontvázak a szekrényből* (*Skeletons from the Cupboard*), Martin Opitz kiadó, Budapest, 2009, 292 pages, 34 tables in text, 28 tables in appendix, 156 figures.

Book review by Erzsébet BERENDI

Finally, the first and long waited volume of studies from Visegrád Meetings of Hungarian Archaeozoologists (2002–2009) came to life in November 2009. The volume – a pioneering in this field – contains studies of archaeozoologists and other scholars from Hungary and abroad.

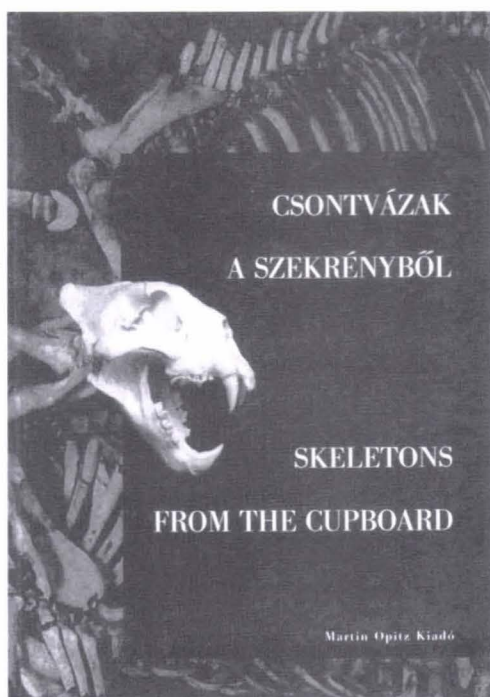
The title of the volume at first may suggest that we are looking at a horror book, or a detective novel, but it genuinely refers to the simple fact, that due to lack of financial support, these manuscripts slept long “Sleeping Beauty-years” in different drawers, cupboards and who knows where else, waiting for the opportunity.

Editors have made a special effort to include non-archaeozoological topics among these writings, that is probably because every meeting had special guests (ethologist, veterinarian, sculptor, ethnographer, GIS analyst, restorer, geologist, etc.) helping to widen the range of vision regarding the animal bones, and the sharing of experiences have always been made in a very open and friendly way. Thus, the studies deal with topics ranging from hands-on restoration work through a review of various animal species to bone manufacturing tradition and the special relationship between animals and humans in the past.

The volume is partly dedicated to Sándor Bökönyi, the internationally respected founder of Hungarian modern archaeozoology, in the memory of the 15th anniversary of his passing away. Starting from this partial dedication, this volume is meant to illustrate the continuity and multifaceted survival of his scholarly heritage. Also, it is a tribute to the conception introduced by the very modest László Bartosiewicz, who initiated the spreading of the spirit of benevolent criticism and cooperation in the times of professional discordances. Thanks to all editors for their persistence and for their devotion.

They say, do not judge a book by its cover – well, this book is beautiful. It is big, massive, it has good quality, printed on thick and glossy paper, with hard cover. The front cover is designed with an in situ photograph in the background and a tiger (or some felid's) skull in the front ground. On the back cover there's a short text and a shoulder blade of a felid drawn in 5 different positions. The book is dark, slightly coloured, which reflects very well the depth of that certain cupboard.

There are 23 articles in this volume: five written in English, the rest in Hungarian. Still, all of them have English abstracts (except for one which has it in German). The articles were loaded in a strict logical



order from the topic's point of view. It starts with a short but important writing of an Italian archaeozoologist, which is a proposal in restoration methods and retrieval of animal bones in the field. Then a change of topic: taphonomy of ceramic finds, written by a conservator. Then we can read about prehistoric finds: first about animal figurines, then bird remains – an article written by one of the editors and the greatest bird-bone expert, and then about sub-fossil finds of black rat, inserted in a complex presentation of these animals. Afterwards, a series of theoretical writings follow, synthesis articles, very easy to read and to enjoy not only for archaeozoologists: an overview of red deer from 3rd to 8th century AD; a presentation of human-animal relationship reflected in early medieval horse burials; a very readable article about “equestrian nomadic” traditions written in one of the editors’ unique style of storytelling scattered with illustrations; and another overall writing about military horse breeding between the 15th and 20th century, also with many illustrations. Then complete archaeozoological analyses follow: that of a Late Avar site with pastoral tradition conclusion; that of an Árpád Period settlement with huge amount of very useful metrical data; animal keeping in the Danube Region written by the honourable István Vörös; and the analysis of a great amount of early Modern Age animal remains. Turning the page, we meet a historian’s very interesting writing about animal transformation in early Modern Age witch-trials. Then we can read a synthesis article again, this time about sheep and goat in the 16th–17th century. After this, the articles slowly turn their faces towards the most discussed topic of worked bones. We can read a transient writing about 18th century cattle horns, part of them showing cut- and sawmarks. Then the reader has a very interesting experimental archaeology article written by a designer and a museologist, and this is about sheep-horns functioning as material for bows. Other uncommon themes follow: the roman bone scabbard slides and Avar Period jar types made of bones. Next is an article about bone workshop debris, an illuminating comparison between Roman and Medieval times with very good photographs. A similar article follows, but specific for one particular 12th century site from Hungary, presenting a beautiful material. The last worked-bone article presents worked antler finds from the 16th–17th century, written by the third editor about a local (the home of these archaeozoological meetings) material. The collection closes with another synthesis article about animal powered mills.

At the end of these outstanding articles, the reader can meet the authors “face to face”: besides their short introduction, the editors thought about presenting their pictures, too, in alphabetical order: Bartosiewicz László (archaeozoologist), Bartus Dávid (archaeologist), Choyke, Alice M. (archaeozoologist), Czeglédi Edit (archaeologist and psychologist), Csippán Péter (archaeozoologist), Daróczi-Szabó László (archaeozoologist), Daróczi-Szabó Márta (archaeozoologist), Farkas Nikolett (archaeologist), Fraser Sheena (archaeozoologist), Gál Erika (archaeozoologist), Gál Erika (archaeologist, conservator), Gerken Julia (archaeozoologist), Gróh Dániel (archaeologist), Kovács Zsófia Eszter (archaeozoologist), Kovács István (archaeozoologist), Kőrösi Andrea (archaeozoologist), Lichtenstein László (archaeologist-archaeozoologist), Nickel Réka (historian), Piovesan Laura (archaeologist-archaeozoologist), Szombathy Gábor (designer), Szöllősy Gábor (museologist), Szvath Márton (archaeologist), Tóth Gyula (conservator), Tugya Beáta (archaeozoologist), Vörös István (archaeozoologist).

Hoping that the editors (or maybe other editors) just can't help believing and will remain in search of entering dreams doing this amazing job – first of everything keeping a team together and feeding our hearts and minds – I recommend this volume to all archaeozoologists, future archaeozoologists, archaeologists, and all those hungry for knowledge who have ever been in touch with this science, and whoever plans to get in touch with it.

Let me leave you with a funny thought (taken from Kurt Vonnegut, *The Sirens of Titan*) which could be definitely told by any archaeological or archaeozoological find: “*The worst thing that could possibly happen to anybody would be to not be used for anything by anybody. Thank you for using me, even though I didn't want to be used by anybody.*”

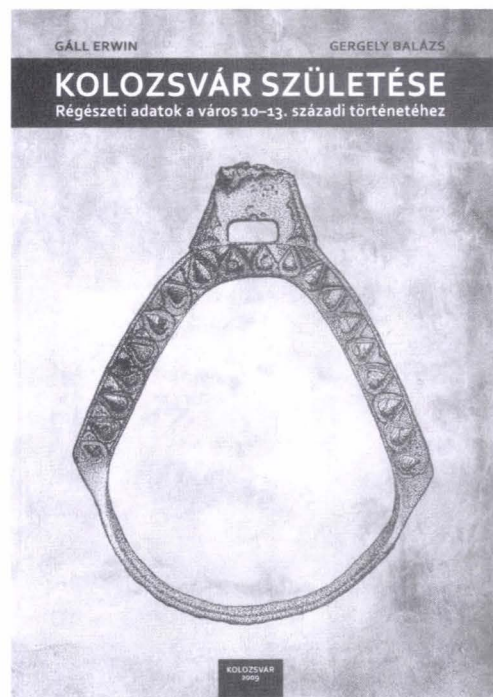
Gáll Erwin–Gergely Balázs, *Kolozsvár születése. Régészeti adatok a város 10–13. századi történetéhez* (*The Birth of Cluj. Historical Data related to the city's history from the 10th to the 13th century*), Kolozsvár, 2009, 200 pages, 67 plates, 4 maps, 17 figures and 6 text images.

Book review by Keve LÁSZLÓ

The reviewed volume, as it is presented in the foreword, compresses the detailed catalogue of the “Hungarian conquest” period and early Arpad age cemeteries and grave goods, the evaluation of the finds and the conclusions that can be subtracted from these, thanks to the work of Erwin Gáll (Vasile Pârvan Archaeological Institute, Bucharest) and Balázs Gergely (National History Museum of Transylvania, Cluj-Napoca). In the publication of the volume beside the two already mentioned authors, also two other researchers took part, Szilárd Gál who in a separate chapter analyzed the skeletons from three early medieval cemeteries (Cluj-Napoca–Zápolya street, Cluj-Napoca–Main square, Hunedoara–Kincseshegy) (p. 157–161) and Mátyás Vremir who analyzed the animal bones found in grave number 10 of the Zápolya street from Cluj-Napoca (p. 162).

Published under the edition of the Erdélyi Múzeum-Egyesület (Transylvanian Museum Society), winner of the 2009 Debut-prize, the volume is a completion to the scholarship since it attempts to discuss uniformly “Hungarian conquest” period and early Arpad age cemeteries discovered on the territory of Cluj-Napoca. This type of detailed analysis of cemeteries was not known to the Romanian scholarship until now.

Regarding the structure of the volume, after the short introduction the authors present the physical geography of Transylvania and Cluj-Napoca as well as the outline of the political history of the tenth to the thirteenth century Cluj-Napoca and its outskirts. An important role is given to the history of research of the tenth and twelfth century cemeteries of the surrounding areas of Cluj-Napoca (p. 16–20). The detailed analysis of the burial customs of these cemeteries considering their structure, the depth of the burial pits, their shape, size, siting and arrangement, as well as the position of the skeletons in the graves, the presence of trepanation, the coins, pottery and animal bones found in the graves, are all discussed in the book. The question of survival of the tenth century burial rituals to the eleventh century is posed. The authors, referring to the present state of research, place the upper time-limit of the tenth century cemeteries to the second half of the century while the lower time-limit of the eleventh century cemeteries to the middle of the century. Beside the almost one century break the authors cannot show continuity in the case of burial rituals of these two centuries (p. 21–50).



The analysis of the material found in the cemeteries starts with the jewellery. The analysis of the "hair-rings" is more thoroughly discussed (p. 51–60). Another important group consists of the weapons, the curbing girdles and their accessories, the articles for use and harness. The analysis of the pottery found in graves, beside its low occurrence, is laconic and insignificant (p. 91–92). This is followed by the group of coins found in the graves which even if relative they illustrate the time of use of the parts of the cemeteries.

A separate chapter deals with the analysis of the grave goods and sporadic finds from the cemeteries from Cluj-Napoca, in which the authors based on the type-chronology of the finds, attempt to classify the cemeteries into a relative chronology.

In the conclusions the authors state that from archaeological point of view continuity between the cemeteries of Cluj-Napoca and its surroundings cannot be proven. The presence of large quantity of weapons and the varied burial rituals in the tenth century cemeteries (Szántó and Zápolya street) allude to the material finds of a heterogeneous origin of a military suite and reject the popular idea in Hungarian scholarship according to which the twelfth century gens had a tenth century occupation. The presence of the later dated cemeteries (Cluj Mănăştur and Main Square) is connected to the settlings of the eleventh and twelfth centuries and to the organization of these into counties.

The catalogue constitutes a significant part of the volume (p. 109–156) with the description of the finds from all the ten finding places from Cluj-Napoca. The quality of the volume is decreased by the fact that frequently the reference to the tables is incorrect.

The presence of the anthropological and archaeozoological analysis as well as the eight pages Romanian and English abstract count as novelty. Notable is the good quality of the tables although the complicated systematization and frequent clerical errors make it hard to follow. The absence of the reference to the last three good quality maps at the end of the volume can also be attributed to inaccuracy (map 1, 2, 4).

Taking into consideration the title of the book *The Birth of Cluj. Historical Data related to the city's history from the 10th to the 13th century* it is a better sounding and a bit forced because of the lack of the thirteenth century finds. Even so from the point of view of approach to the topic, systematization, posing problems and the detailed analysis of cemeteries we deal with a valuable book which counts as a pioneer work in Transylvanian archaeology.¹

¹ Translated by Ünige Bencze.

ABBREVIATIONS

<i>AB</i>	Analele Banatului, Timișoara
<i>ACMIT</i>	Anuarul Comisiunii Monumentelor Istorice, Secția Transilvania, Cluj
<i>ActaArch</i>	Acta Archaeologica Academiae Scientiarum Hungaricae, Budapest
<i>ActaMN</i>	Acta Musei Napocensis, Cluj-Napoca
<i>ActaMP</i>	Acta Musei Porolissensis, Zalău
<i>AÉ</i>	L'Année Épigraphique, Paris, 1883–.
<i>AIIA</i>	Anuarul Institutului de Istorie și Arheologie, Cluj-Napoca
<i>AISC</i>	Anuarul Institutului de Studii Clasice, Cluj
<i>AJPA</i>	American Journal of Physical Anthropology
<i>Aluta</i>	Aluta, Revista Muzeului Național Secuiesc, Sfântu Gheorghe
<i>Angustia</i>	Angustia, Muzeul Carpaților Răsăriteni, Sfântu Gheorghe
<i>Annual MS CEU</i>	Annual of Medieval Studies at CEU, Budapest
<i>AnthrAnz</i>	Anthropologischer Anzeiger, Journal of Biological and Clinical Anthropology
<i>AnthrKözl</i>	Anthropológiai Közlemények, A Magyar Biológiai Társaság Embertani Szakosztályának folyóirata, Budapest
<i>APA</i>	Acta Praehistorica et Archaeologica, Berlin
<i>Apulum</i>	Apulum, Acta Musei Apulensis, Alba Iulia
<i>ArchÉrt</i>	Archaeologiai Értesítő, Budapest
<i>ArchHung</i>	Archaeologia Hungarica, Budapest
<i>ArchKorr</i>	Archäologisches Korrespondenzblatt, Römisch-Germanischen Zentralmuseum in Mainz
<i>ArhMold</i>	Arheologia Moldovei, Iași
<i>Banatica</i>	Banatica, Reșița
<i>BayerVorg</i>	Bayerische Vorgeschichtsblätter
<i>BB</i>	Bibliotheca Brukenthal, Sibiu
<i>BCȘS</i>	Buletinul Cercurilor Științifice Studentești, Alba Iulia
<i>BerRGK</i>	Bericht der Römisch-Germanischen Kommission
<i>BMI</i>	Buletinul Monumentelor Istorice
<i>BMM</i>	Bibliotheca Musei Marisiensis, Seria Archaeologica, Târgu Mureș/Cluj-Napoca
<i>BMN</i>	Bibliotheca Musei Napocensis, Cluj-Napoca
<i>Britannia</i>	Britannia, A journal of Romano-British and Kindred Studies
<i>BT</i>	Bibliotheca Thracologica, București
<i>BTM Műhely</i>	Budapest Történeti Múzeum
<i>Bulletin EAF</i>	Bulletin de l'Association Française pour l'Étude de l'Âge du Fer
<i>CCA</i>	Cronica Cercetărilor Arheologice din România
<i>CIL</i>	Momsen, Th. (ed), Corpus Inscriptionum Latinarum, Berlin, 1853–.
<i>ComArchHung</i>	Communicationes Archaeologicae Hungariae, Budapest
<i>Crisia</i>	Crisia, Muzeul Țării Crișurilor, Oradea
<i>Cumidava</i>	Cumidava, Anuarul Muzeelor Brașovene
<i>Dacia N. S.</i>	Dacia, Recherches et découvertes archéologiques en Roumanie, I–XII (1924–1948), București; Nouvelle série (N. S.), Dacia. Revue d'archéologie et d'histoire ancienne, București
<i>DissPan</i>	Dissertationes Pannonicae, Budapest
<i>EA</i>	Eurasia Antiqua, Deutsches Archäologisches Institut

<i>EphemNap</i>	Ephemeris Napocensis, Cluj-Napoca
<i>FolAnthr</i>	Folia Anthropologica, Szombathely
<i>FolArch</i>	Folia Archeologica, a Magyar Nemzeti Múzeum Évkönyve, Budapest
<i>Gallia</i>	Gallia, Centre national de la recherche scientifique, France
<i>Germania</i>	Germania, Frankfurt am Main
<i>HABES</i>	Heidelberger althistorische Beiträge und epigraphische Studien
<i>HOMÉ</i>	A Herman Ottó Múzeum Évkönyve, Miskolc
<i>IDR</i>	Inscripțiile Daciei romane, I-III/4 București; III/6 Paris, 1975-.
<i>Instrumentum</i>	Instrumentum, Bulletin du Groupe de travail européen sur l'artisanat et les productions manufacturées dans l'Antiquité
<i>Jahrbuch RGZM</i>	Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz
<i>JahrGPV</i>	Jahresbericht der Gesellschaft Pro Vindonissa
<i>JahrÖAI</i>	Jahreshefte des Österreichischen Archäologischen Institutes in Wien
<i>JAMÉ</i>	A Nyíregyházi Jónás András Múzeum Évkönyve, Nyíregyháza
<i>JFS</i>	Journal of Forensic Sciences
<i>JHE</i>	Journal of Human Evolution
<i>JRS</i>	Journal of Roman Studies
<i>JRMS</i>	Journal of Roman Military Studies
<i>MAIUAW</i>	Mitteilungen des Archäologischen Instituts der Ungarischen Akademie der Wissenschaften, Budapest
<i>Marisia</i>	Marisia (V–), Studii și Materiale, Târgu Mureș
<i>MCA</i>	Materiale și Cercetări Arheologice, București
<i>MemAnt</i>	Memoria Antiquitatis, Acta Musei Petrodavensis, București
<i>MN</i>	Muzeul Național, București
<i>MSV</i>	Marburger Studien zur Völkerkunde, Berlin
<i>PAS</i>	Prähistorische Archäologie in Südosteuropa, Berlin
<i>PBF</i>	Prähistorische Bronzefunde, München, Stuttgart.
<i>Potaissa</i>	Potaissa, Muzeul de Istorie Turda
<i>PZ</i>	Prähistorische Zeitschrift, Berlin
<i>RCRFA</i>	Rei Cretariae Romanae Fautorum acta, Abingdon
<i>RégFüz</i>	Régészeti Füzetek, Budapest
<i>RevBis</i>	Revista Bistriței, Complexul Județean Muzeal Bistrița-Năsăud
<i>RevMuz</i>	Revista Muzeelor, București
<i>RIU</i>	Die Römische Inschriften Ungarns, Budapest, 1972
<i>Sargetia</i>	Sargeția, Buletinul Muzeului județului Hunedoara, Acta Musei Devensis, Deva
<i>SCIV(A)</i>	Studii și Cercetări de Istorie Veche (și Arheologie 1974–), București
<i>StCom Sibiu</i>	Studii și Comunicări Sibiu
<i>StMat Mureș</i>	Studii și Materiale Târgu Mureș (V– Marisia)
<i>StudiaUBB</i>	Studia Universitatis Babeș-Bolyai, series Historia, Cluj-Napoca
<i>Thraco-Dacica</i>	Thraco-Dacica, Institutul de Tracologie, București
<i>UPA</i>	Universitätsforschungen zur prähistorischen Archäologie, Bonn
<i>VHA</i>	Vegetation History and Archaeobotany
<i>VMMK</i>	A Veszprém Megyei Múzeumok Közleményei
<i>ZA</i>	Zeitschrift für Archäologie

